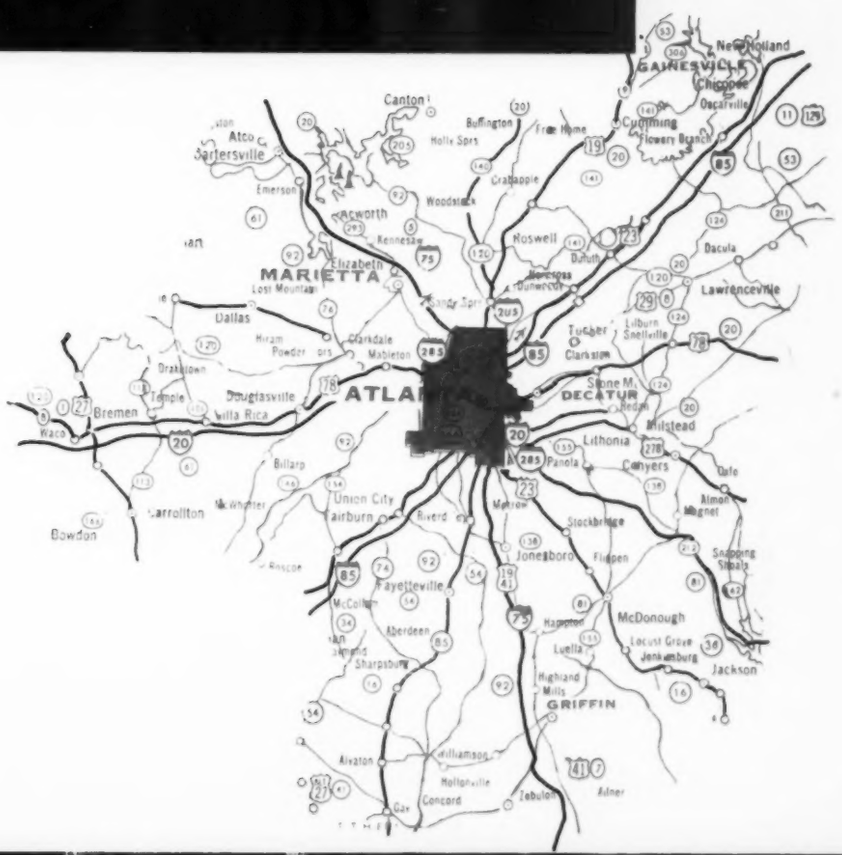
PRINTING PRODUCTION

AUGUST 1960



PRINTING IN ATLANTA

Installing a Quadder is an investment . . .

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STAR SELECTRO-MATIC QUADDER

If you invest in a Star Selectro-Matic Quadder, you can increase your "White Space" production an overall average of 25-30% . . . without any additional floor space or overhead . . . and, if your linecasting machines handle a minimum of 2 hours of quadded composition daily, savings will pay for your investment in about a year. After that, years of increased production will make your Star Selectro-Matic Quadder one of the best time and money-savers in your composing room.

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STAR PARTS, Inc.
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BRANCH: 1327 BROADWAY, KANSAS CITY, MO. AGENCIES: CHICAGO • MINNEAPOLIS • LOS ANGELES • DENVER • SO. ACTON, MASS. • STAR PARTS (LINECASTING) CANADA LTD. MONTREAL AND AGENTS OVERSEAS.

For More Information Circle 167 on Reader Service Card

NEW!

PRECISION EQUIPMENT FROM STA-HI FOR...

DIRECT PRINTING

STA-HI MOUNT-A-PLATE

STA-HI CURV-A-PLATE

STA-HI CORPORATION

Builders of Precision Newspaper Equipment for 32 years

235 W. Washington Blvd. Whittier, California

Growing use by newspapers of the "direct printing" method to assure faithful reproduction of both full color and black and white engravings has led Sta-Hi to development of two new machines to speed processing of such plates and assure close press registration.

The Curv-a-Plate accurately curves either zinc or magnesium plates to properly fit press saddles.

The Mount-a-Plate makes possible fast, in-register mounting of curved plates on the saddles.

For complete details on this new time and money saving production equipment, write for Bulletin DP-71560.

For More Information Circle 165 on Reader Service Card

NEW ANSCO PLESTAR

REPROLITH® ORTHO TYPE B

A NEW STANDARD

IN DIMENSIONAL STABILITY

Here's an all new *cast* polycarbonate base that not only has superb dimensional stability, but sets a new high in impurity-free, crystal clear base materials.

Ansco Plestar is manufactured with greater filtration before casting. This means greater clarity and a crisper image.

And you can get this superb base material coated with Ansco's time-tested Reprolith Ortho Type B emulsion. This combination produces a harder dot and a new high in scribing characteristics.

Try this great new material today. Ansco, Binghamton, New York, A Division of General Aniline & Film Corporation.

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Plestar

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easy-to-use TENAPAK

replaces dead metal... ACCURATELY

With TENAPAK, routed areas of engravings, even of uneven depths, are filled uniformly to exact printing height. In four minutes under heat and pressure (300°F. at 200 p.s.i.), TENAPAK replaces the dead metal and supports and protects the duplicate printing surface throughout the electrotyping process and hand finishing operation. The screen texture of TENAPAK'S aluminum surface clearly identifies the dead metal areas on the electrotype and simplifies final routing.

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TENAPAK is available in sheets and various size buttons and strips to reduce patching time. To eliminate building-up and to assure maximum accuracy, TENAPAK is supplied in precise, color-keyed thicknesses for different depths. For a sample sheet and detailed instructions, write to:

Tenak— **TENAK PRODUCTS COMPANY** • 2615 N. Paulina Street, Chicago 14, Illinois

Plastics for Letterpress | ALL TENAK PRODUCTS ARE FULLY GUARANTEED AND SHIPPED PREPAID THROUGHOUT THE UNITED STATES

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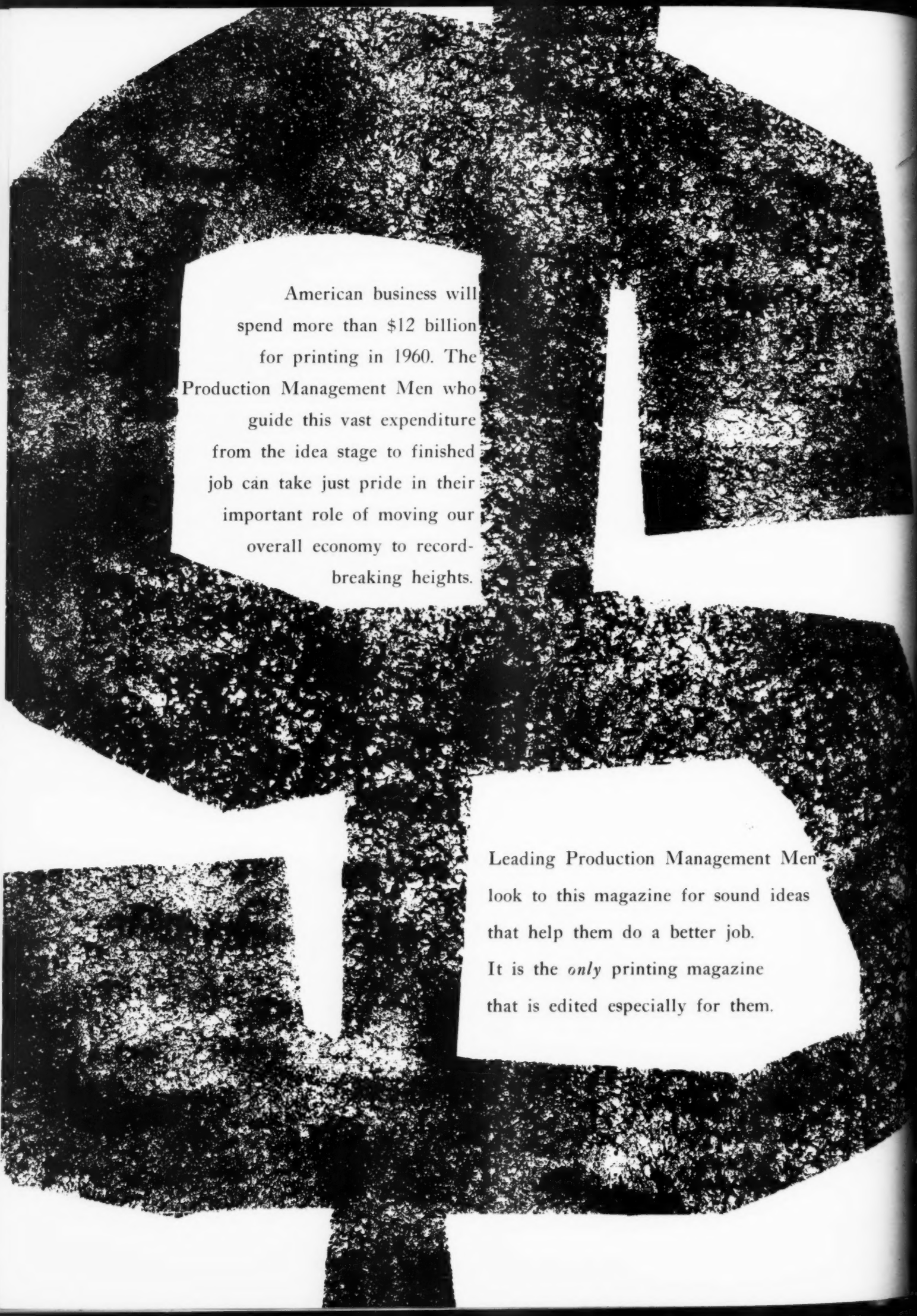
American business will spend more than $12 billion for printing in 1960. The Production Management Men who guide this vast expenditure from the idea stage to finished job can take just pride in their important role of moving our overall economy to record-breaking heights.
Leading Production Management Men look to this magazine for sound ideas that help them do a better job. It is the *only* printing magazine that is edited especially for them.

AUGUST 1960
VOL. 90, NO. 11

PRINTING PRODUCTION

Published especially for management, production and mechanical executives responsible for printing production and the specification of equipment and supplies used in all major processes of the Graphic Arts industry.

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PRINTING PRODUCTION is published monthly at 1276 West Third St., Cleveland 13, Ohio. © 1960 by Willsea Publishing Company.

Subscription rates in United States: One year, $5.00; two years, $8.00; three years, $10.00. Canada and U. S. Possessions: One year, $5.50; two years, $8.50; three years, $11.00. All other countries: One year, $10.00; two years, $16.00; three years, $20.00, in advance. Single current issues, 50c; back issues, 75c. December *Where To Buy* Printing Equipment and Supplies Reference Issue, $2.50 in United States; $3.50 outside United States. All foreign subscriptions payable in U. S. funds.

Member Publications BPA Business Audit

Accepted as Controlled Circulation Publication at Cleveland, Ohio.

PRINCIPAL ARTICLES

40 Atlanta Offers Cross Section of U. S. Printing
By RICHARD A. STOUT

42 Progressive Firms Mark Atlanta's Commercial Printing
By JOHN T. WRIGLEY

46 Comment by Atlanta's Printing Leaders

49 Specialties are Big Printing Business in Atlanta
By STAFF WRITERS

55 Should I Print the Job by Letterpress or Offset?
By WILLIAM SANDERSON

59 Dual Temperature Indicator for Linecasting Pots
By THEODORE GARDINER

68 Magnetic Ink Quality Defined for Check Printers

72 Understanding Paper Properties
By BYRON L. WEHMHOFF

REGULAR DEPARTMENTS

Letters to the Editors, 6
News Items, 10
Printing Industry Meetings, 14
Helpful Literature, 36
Editorial Page, 39
Overseas' Report, 65
Idea File, 80
Research Activities, 83
Patents for Printing Industry, 93
Advertisers' Index, 110
Graphic Views, 112

EQUIPMENT & SUPPLIES

Pre-Angled 41 In. Contact Screen, 84
Calculagraph Computes, Prints Elapsed Time, 84
Redesigned Atlantic Repro-Proof Press, 84
Pile Inverter Operates at Floor Level, 84
Vinyl Engraving Material, 85
New Size Peg System Boards, 85
Side Guide Control for Multilith, 85
Punched Tape Converter, 85
Overlay and Opaquing Film, 87
Plastic Container Dispenses Tape, 87
Plate Curving, Mounting Tools, 87
Zinc Powderless Etchant, 88
Pre-registered System for Web Offset, 88
Unstacker and Trimmer Loader, 88
Portable 3M Makeready Unit, 88
Aluminum Plate Backing Sheet, 89
Recorder Shows Off-Time of Machines, 89
Web Offset Ink, 90
Nebitype Casts Slugs to 42 Picas, 90
Unwind and Rewind Press, 90
Webfed Offset Newspaper Press, 91
Copyboard Light Converter, 91

THE COVER of this month's issue draws attention to Atlanta, the printing hub of the Southeast and to the special feature section beginning on page 39. We call this a theme issue, using the title *Printing in Atlanta* for a series of stories on the plants and printers of that town. If you are interested in comparing the progress in your city's Graphic Arts industry with that of another, the feature section includes considerable information for this purpose. Once again, we show you in this issue the results of printing with the Impact process (see March 1960 issue)—using color coated stock with a color related ink for the black plate. (Front cover map, copyright by Rand McNally & Co., R. L. 60S96.)

LETTERS

TO THE EDITORS

Says Plant Layouts Should Meet Needs of Majority

Paul Doebler in his letter printed in your June issue (pages 6-8) takes considerable space to answer "no" to the four questions I asked in the May issue. It seems to me that only a very unusual shop would profit from having the magazine racks blocking the area between machine and dump.

Surely if there is considerable walking to the dump and to the magazine racks, *both* of these should be at a minimum distance from the machine. Turning the machines 90 degrees from the position shown could place the operator with the magazine racks on his right and the dump on his left. This should entirely eliminate the traffic problem which must exist when men with magazines are compelled to meet and pass men with type.

If layouts are to be shown they should meet the needs of the majority of shops or if the shop is one in a hundred then the reader should be warned that the layout shown will probably not fit his pattern of operations. Instead of being thus warned, he is told that the layout in question is for a shop where "the biggest cost was for the handling of type."

I thoroughly agree with the authors of the article that each printer should analyze his own operation if he expects to get the best possible operation for his particular work. Possibly he should make sure that a "loyal opposition" has a chance to pick to pieces his chosen layout!

Frank DeWitt, Assistant Head
Graphic Arts Research Dept.
Rochester Institute of Technology
Rochester, N. Y.

Sets Record Straight on Equipment Exhibitions

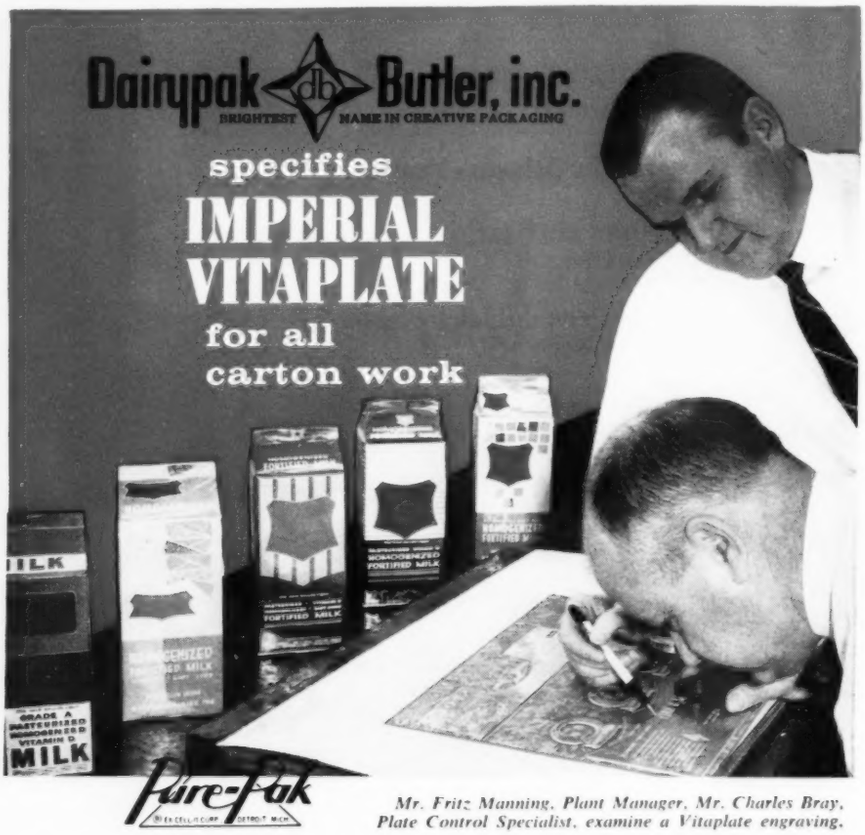
"Let's organize an equipment exhibition for our next convention." That stimulating idea has been proposed by trade association executives and organization leaders at frequent intervals during the past 40 years.

Today, the interest aroused by the 1959 Seventh Educational Graphic Arts Exposition in New York, has brought so many new proposals and requests for exhibitions of printing equipment that a review of the controlling conditions may be helpful. We need to understand that such exhibitions, valuable as they are, involve costs and complications that have become serious economic factors.

A recent editorial in a trade paper reviews these problems and concludes: "Why not develop an independent organization of manufacturers to plan a feasible program for these expositions?" That query, posed in good faith by a present-day editor, shows clearly how the rapid cycle of "generations" among industry leaders (and writers) may overlook past experience. *We do have an organization* of the printing industry and its manufacturers, formed over 30 years ago for just this purpose. That organization and its efficient manager, A. E. Giegengack, staged the big exposition in New York last September which was visited by thousands of Graphic Arts executives and technicians.

Incorporated in 1924 as National Graphic Arts Expositions, Inc., this cooperative activity in the Graphic Arts industry was founded by leaders of the International Assn. of Printing House Craftsmen, the New York Employing Printers Assn., the United Typothetae of America (forefathers of today's Printing Industry of America), and a group of manufacturers who later became members of the National Printing Equipment Assn. (founded in 1933).

Subsequent changes, from time to time, among the 18 directors of the Graphic Arts Expositions corporation have included leaders of the International Assn. of Electrotypers and Stereotypers, the International Printers Supply Salesmen's Guild, the International Typographic



Mr. Fritz Manning, Plant Manager, Mr. Charles Bray, Plate Control Specialist, examine a Vitaplate engraving.

"Imperial Vitaplate provides greater depth, no shoulders and cleaner small type", says Mr. Charles Bray, Plate Control Specialist for this leading carton producer."It also gives us better release in the mold."

These are some of the reasons many photoengraving buyers are specifying Vitaplate. Have you tried Vitaplate lately? Ask your Imperial representative about the new Photoengraving Engineering Service.

IMPERIAL ZINCS

- **VITAPLATE with VITASOLV** *—the original one-bite additive*
- **DURAPLATE**
- **REGULAR**

IMPERIAL TYPE METAL COMPANY
Chicago 50 • New York 7 • Philadelphia 34
Imperial

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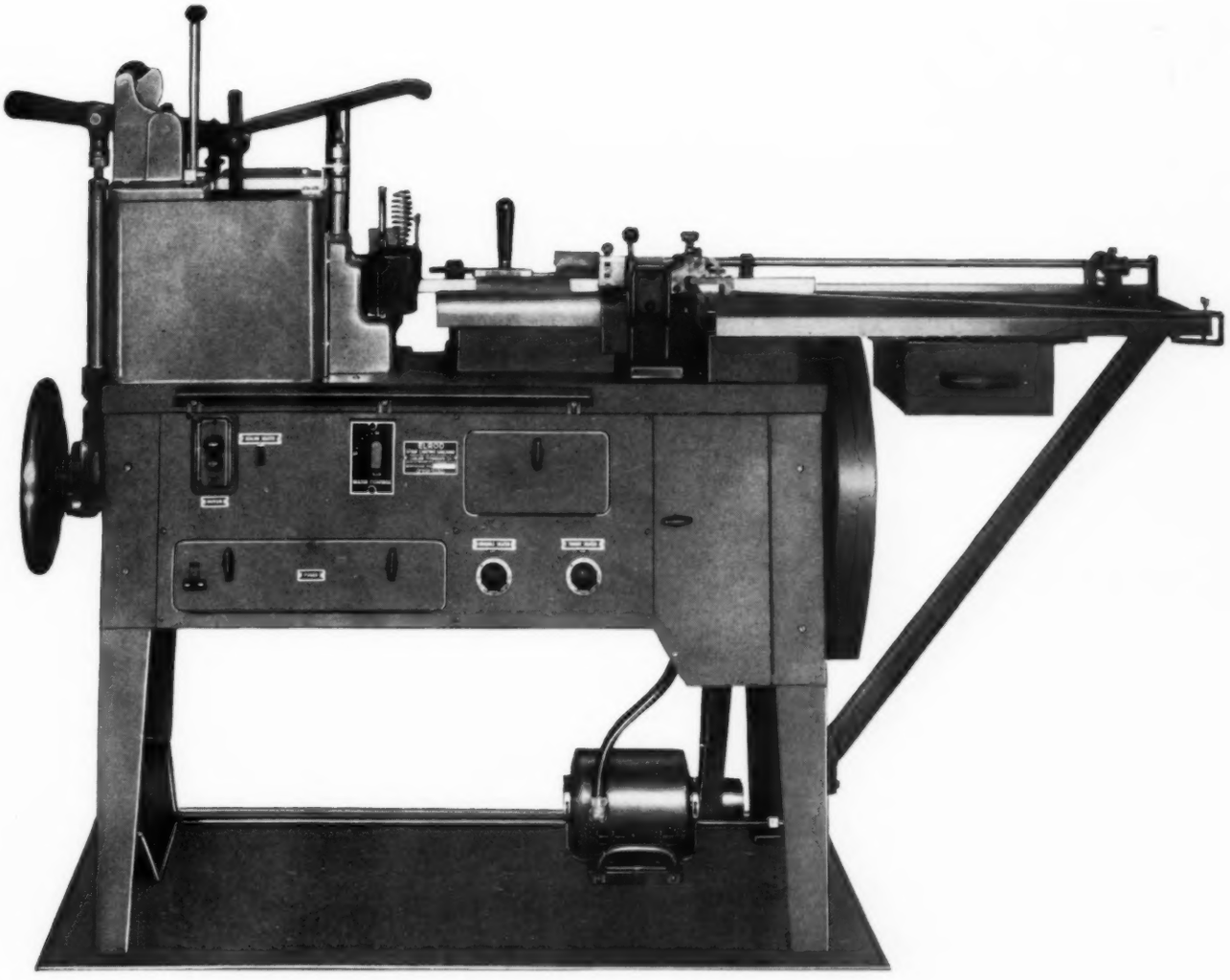
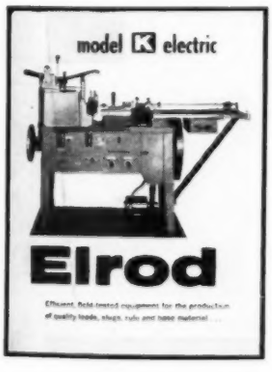


model K Elrod



Send for your free copy of this new folder on the Model K Elrod

The hearty acceptance of the Model K by the printing industry is further recognition of the importance of the Elrod as basic equipment for strip material requirements.

Six different Elrod models are now available to meet practically any need—publications, job printing, circular and poster printing, daily newspapers (over 70% of all those in the United States and Canada use Elrods), weeklies, or any plant wanting to control its own production. Many present Elrod users profit by installing a Model K as supplementary equipment for continuous production of certain largely-used material.

Each Elrod model is simply designed to produce high-quality material. Supplied electric-heated or gas-heated; molds up to 18-points are interchangeable on all Elrods.

Ludlow Typograph Company 2032 Clybourn Avenue, Chicago 14

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PLATES SIMULTANEOUSLY!

MORE (OR LESS) AS NEEDED!

Just a quick make-ready of one master plate . . . and all plates are routed simultaneously! Firm, safe lock-up, and the electronic tape programs the routing operation with speed and precision. Write today for full information.

NOLAN

NOLAN — design for savings

Basic unit routs four color plates simultaneously. Combined units will rout 4, 8, 12, 16, or up to 20 plates in a single operation.

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Composition Assn., the Education Council of the Graphic Arts Industry, and the successors to those founder organizations which became Printing Industry of America and the National Printing Equipment Assn.

This substantial and representative exposition organization has put on four highly successful national exhibitions. By contrast with the financial headaches that marked earlier projects (in 1924 and prior years), this cooperative exposition corporation has been well managed. From the start it has produced, with each show, substantial net proceeds that have been (a) allotted to educational uses, and (b) retained in the necessary operating fund to finance the subsequent show.

The previous history of inadequate planning and backing of printing equipment exhibitions had included one elaborate project in 1924. The exhibitors had made installations only to be faced with a court action to prevent opening the show unless the promoter fulfilled his obligations. In that case the exhibitors jointly contributed several thousand dollars to protect their investment—and it was that deficit crisis that led to the formation of the exposition corporation.

But it was recognized that the 1924 debacle was partly due to the efforts of show promoters to stage these exhibitions too frequently. The manufacturers could not consistently support so many projects so frequently.

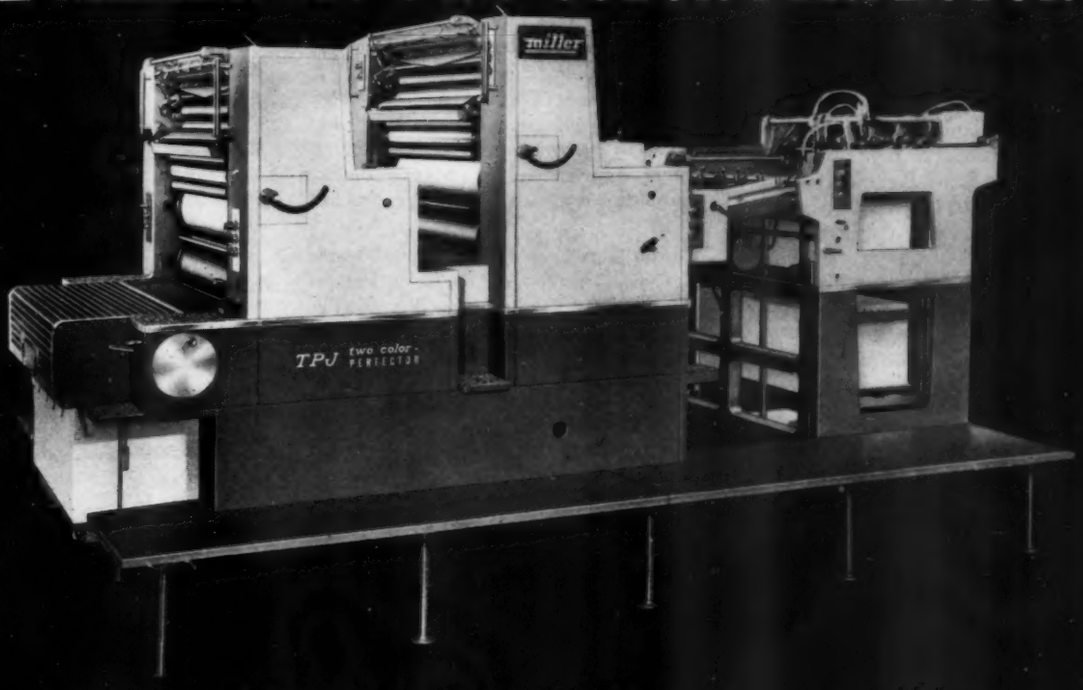
Not only were heavy costs involved for space and the shipping and erection of heavy machines, but equally serious was the allotment of personnel which disrupted normal field contacts and service for printing plants across the country.

But the changes and developments in Graphic Arts equipment do not occur with the annual frequencies that have marked the automobile industry, for example. The relatively modest size of the printing equipment industry, as compared with other fields, imposes economic limitations that deny the heavy outlays for frequent shows. Thus the expositions corporation has staged, at necessarily irregular intervals instead of the five year period originally planned: The Fourth Graphic Arts Exposition in New York in 1927; the Fifth (postponed by the depression and keyed to the New York World's Fair) in 1939; the Sixth (postponed by the wartime period) in Chicago in 1950, and the Seventh, now fresh in our memories, in New York in 1959.

Meantime, and especially in the recent post-war years, the American manufacturers who seek foreign markets (thus building up their possibilities for broader service to printing plants at home) have variously exhibited in European expositions. This is generally done through the agents serving the country in which the exposition is held. They have observed

(Continued on Page 99)

THE MILLER TPJ TWO COLOR-PERFECTOR



than unrivaled in versatility...

in features as well!

Fast, dependable Miller Stream Feeder

Fully motorized, reloading-type feeder pile

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Provisions for continuous delivery

Printing cylinders mounted in pre-loaded tapered roller bearings

Chain-driven full capacity inkers with wide accessibility

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INVESTIGATE THESE AND THE MANY OTHER OUTSTANDING FEATURES!

Write today for a descriptive brochure!

The Miller TPJ Two Color-Perfector is acknowledged as "The World's Most Versatile Offset Press" because of its amazing ability to produce at high speeds and with unexcelled quality either two colors on one side or one color on both sides of a sheet! But more than that, the Miller TPJ has the features most wanted for consistent, dependable, *profit-making* operation.

For firms looking to future expansion, the Miller SJ Single-Color is a logical choice. The addition of a second color unit transforms the Miller SJ Single-Color into the Miller TPJ Two Color-Perfector.

MILLER PRINTING MACHINERY CO.
1103 Reedsdale St., Pittsburgh 33, Pa.

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In Canada:
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NEWS ITEMS

West Coast Firms Consolidate—The consolidation of the Roller Press and Portal Press, San Francisco, has been announced by Robert Wale, Roller Press official. According to him, the new firm will operate under the name of Roller Press from headquarters at 2860—16th St., San Francisco. Portal Press operations have been owned by Roller Press for 10 years.

W. F. Hall Names Executive Vice President—Robert S. Knox has been elected executive vice president of W. F. Hall Printing Co., Chicago. Prior to this election, Knox was vice president and comptroller of the firm.

Pusey Announces Retirement—Elmer M. Pusey, business manager, Judd & Detweiler, Inc., Washington, D. C., has announced his retirement. Pusey has served as treasurer of the Printing Industry of America and is currently finance committee chairman of that organization.

Curran Joins Graphic Arts Press—Thomas J. Curran has joined the sales staff of Graphic Arts Press, Inc., Washington, D. C. He was formerly assistant executive director of the Lithographers and Printers National Assn.

Chief Development Engineer of Goss—Louis S. Tyma has been appointed chief development engineer of Goss Company, Div. of Miehle-Goss-Dexter, Inc. In his new position, Tyma will be responsible for the administration and technical supervision of research and development projects. Tyma has been associated with Goss since 1942 and is a member of the Technical Assn. of the Graphic Arts.

TYMA

PRIBAN

Joins Goss Engineering Staff—Milton L. Priban has been appointed staff electrical engineer of Goss Company, Div. of Miehle-Goss-Dexter, Inc. Formerly, Priban served as chief engineer of Cline Electric Manufacturing Co. and as district manager for Crosfield Electronics, Inc.

Reynold's Printing Div. Promotions—The following promotions have been made in the printing division of Reynolds Metals Co.: J. E. Roberson has been named manager of the St. Louis printing plant; Frank J. Schay, superintendent of the St. Louis facilities; and E. L. Martin, technical staff assistant to the printing division.

Hammermill Appointments—Five appointments have been made in the marketing operations of Hammermill Paper Co. Harold B. Wilson has been named director of advertising and sales promotion and John Studeny, director of marketing development, a new post which incorporates marketing planning and product development as related to paper sales. Richard A. Reeves has been apointed divisional sales manager for the Erie, Pa., and Oswego, N. Y., divisions; Robert D. DeVitt, divisional product manager for the same two plants; and Robert J. Schweitzer, Southeastern district sales manager.

Roto Cylinders Moves Plant—Roto Cylinders, Inc., rotogravure cylinder engravers, has moved into a modernized building at 701 Public Rd., Palmyra, N. J. The 23,000 sq. ft. plant is of one story construction, completely air conditioned and humidity controlled. President of the firm is Howard A. Schumacher, formerly vice president of Graflex, Incorporated.

Three Enco Representatives—Three additions have been made to the Enco technical sales staff by Azoplate Corporation. Nicholas L. Lattanzio will represent the firm in the New York metropolitan area;

! fact:
MORE ROBERTSON Cameras are in use today... than any other make!
reasons?
"320" CAMERA 16" x 20" FILM SIZE
1. More real value for the money
2. Longer service life . . . less maintenance
3. Faster, easier operation
4. Most advanced design
5. Higher assured trade-in value
6. Highest quality product
7. . . . THEY'RE BUILT AND BACKED BY THE LARGEST MANUFACTURER OF PHOTO-MECHANICAL EQUIPMENT IN THE COUNTRY
There is a Robertson Camera for every photo-mechanical requirement . . . in the most economical size and model to match your needs. Ask your Robertson Camera Dealer for full details.
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7440 LAWRENCE AVENUE • CHICAGO 31, ILLINOIS
Robertson PHOTO MECHANIX

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INTRODUCING NEBITYPE TO AMERICAN COMPOSING ROOMS

A hand composition machine that produces
display type lines on slugs in 42 pica lengths in 9 seconds
Simplicity of operation . . . built-in safety features . . . push-button controls . . . permits composition on Nebitype by operators with little or no mechanical ability
Quality . . . uniform temperature control at melting pot and mouthpiece coupled with a self-contained cooling system insures quality of type face and solidity of slug
Versatility . . . permits casting 42 and 84 pica slugs from Nebimats or competitive line casting equipment matrices . . . Nebimat offset stick . . . wide variety of type faces
NEBITYPE speed, simplicity, quality, versatility . . . **COST LESS THAN YOU ARE NOW PAYING.**
Send for illustrated folder today.

LANSTON MONOTYPE COMPANY
Division of Lanston Industries, Inc.
Monotype House
G Street below Erie Avenue, P. O. Box 4768, Philadelphia 34, Pa.

This advertisement was composed on the Monotype in Bookman and 20th Century
2459

For More Information Circle 102 on Reader Service Card

Fred J. Whalen, in the Boston area; and Charles J. McLaughlin, in the Cincinnati district. Both Lattanzio and Whalen have had experience in litho production. McLaughlin has had extensive experience in lithographic sales.

Gunderson, Bretson Promoted by 3M—Norman H. Gunderson has been promoted to manager of the Mid-States Gummed Paper Div., Minnesota Mining and Manufacturing Co. He succeeds W. G. Bretson who has been promoted to a new assignment at the St. Paul, Minn., division. Bretson's new position will be announced later. Gunderson joined 3M in 1947 and was named industrial trades sales supervisor in 1951 and Chicago branch manager in 1952. Bretson is a director and past vice president of the Gummed Industries Assn.

Miehle Eastern Service Manager—Charles A. Borsani, has been promoted to the post of service manager, Eastern Region, Miehle Company, Div. of Miehle-Goss-Dexter, Inc. Borsani, who has been with the company for 10 years, will make his headquarters at 219 E. 44th St., New York.

Bingham Eastern District Manager—James T. Keating has been promoted to the position of Eastern District manager of Bingham Bros. Div., Sam'l Bingham's Son Manufacturing Co. Keating has been associated with Bingham since 1947 and will direct sales from the firm's New York office.

BORSANI

KEATING

Kubilius Named Editor of *Book Production*—Walter Kubilius has been appointed editor of *Book Production* magazine. Well-known in the Graphic Arts, Kubilius has been research editor of *Book Production* for 14 years. Most recently he was associated with American Type Founders Co., Inc., in the areas of marketing and promotion for three years.

Gleason Represents Lindenmeyr & Sons—William P. Gleason has been named representative of the Book Publishers Dept., Henry Lindenmeyr & Sons, Long Island City, N. Y. Well-known in the Graphic Arts and book publishing fields, Gleason was formerly associated with the Colonial Press, Clinton, Mass. He has served as president of the New York City Craftsmen's Club and is a member of Type Directors, Typophiles and Task Committee of Printing Week in New York City.

Dombrow Joins Crosfield—Wallace W. Dombrow has joined Crosfield Electronics, Inc., as sales manager of the central district. In his new position, Dombrow will be in charge of the firm's Chicago office at 205 W. Wacker Dr. Formery, he was associated with R. Hoe & Co., Inc.

Goodkin Appoints Distributor—Griswold Duplicating Products, Inc., has been appointed Western distributor for M. P. Goodkin Co. Under the management of William Stites, Griswold will service dealers from headquarters at 2808 Temple St., Los Angeles.

Kehe Joins Continental—Edwin Kehe has been named head of the sales department of the New Products Div., Continental Printing Equipment Co. Previously, Kehe has been associated with Dexter Folder Co. and Western Newspaper Union.

Allied Paper Expands—Allied Paper Corp. has acquired Carmax Corporation, Houston, Tex., manufacturer of business forms, as a wholly owned subsidiary. According to Arnold H. Maremont, chairman of Allied, the purchase is part of the company's expansion program in the

DO THE WORK OF HOURS *in Minutes!*

SLASH YOUR PRINTING COSTS WITH THE

Rouse POWER MITERER

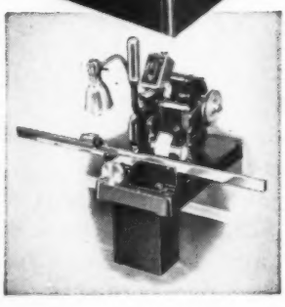
If you need miters in either small or large quantities, no other machine nor method can turn out anywhere near as many perfect joining miters so quickly from strip material. That's how the Rouse Power Miterer can slash your printing costs by doing work in minutes that now takes you hours.

A Rouse Power Miterer won't cost you one cent! Printers the world over say that money paid for a Rouse Power Miterer quickly comes back through tremendous savings in expensive time. After getting your money back, you'll start collecting daily dividends from permanently lower operating costs.

FROM THE SMALLEST JOB SHOP UP TO THE LARGEST PLANT, ONLY ROUSE MAKES A POWER MITERER FOR EVERY TYPE OF USE.

You may buy any Rouse Power Miterer as a bench model or with any other equipment you wish.

Virtually every printing plant in the world uses one or more Rouse products.



NEW ROUSE CATALOG

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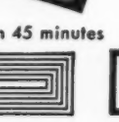
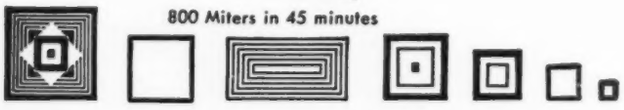


800 Miters in 45 minutes



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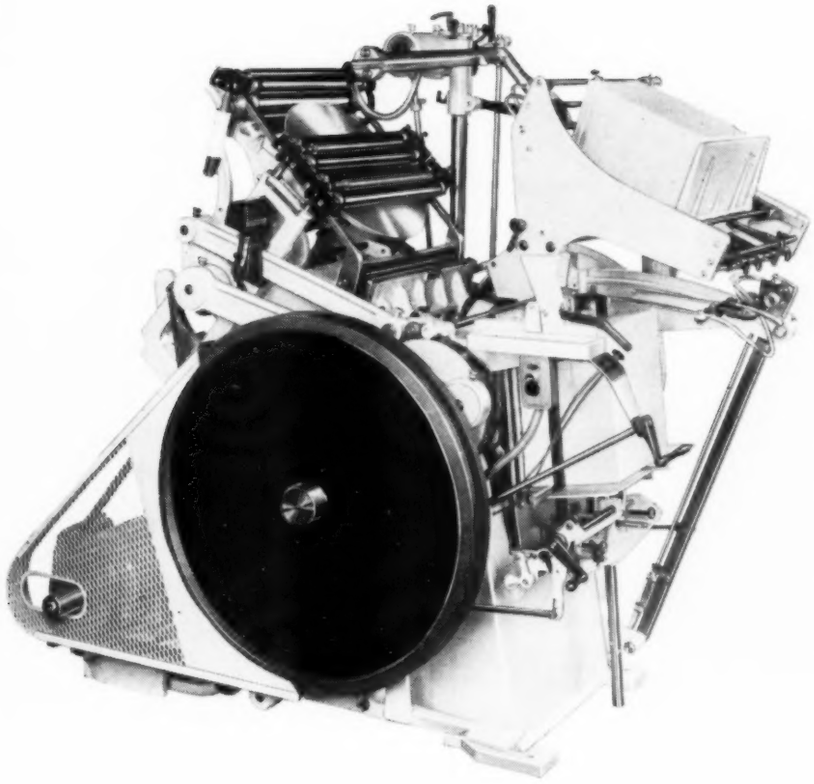

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It is impossible to describe on this page the many benefits you get in the all new "D" Series Kluge. Why not visit one of our show rooms and see for yourself. As soon as possible, we will visit your shop and review the many advantages we have to offer. If, however, you are in need of a new press in a hurry, contact any of our branch offices or:

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business forms field. Previously, Allied acquired the Egry Register Co., Dayton, O., the Stephen Greene Co., Philadelphia, and the American Register Co., Boston—all manufacturers of business forms.

Named Vice President — Thomas P. Le Bosquet has been named vice president of Art Gravure Corp., New York. In addition to his new position, Le Bosquet is a director of the corporation and was formerly assistant to the president of the company.

Sun Opens Cincinnati Plant—A new printing ink plant was opened recently in Cincinnati by Sun Chemical Corp. Manager of the new plant is Robert Reid, veteran Sun employee. He will work under the direction of J. S. Thome, vice president, Sun, who is in charge of the company's Graphic Arts group and General Printing Ink Div.

Plans to Acquire Four Companies—Progress Manufacturing Co., Inc., has announced plans to acquire General Offset Printing Co., Inc., a Massachusetts company, and two smaller printing firms. After the transaction, Joseph Venti, president, and Herbert Marks, treasurer, will continue in their posts with General Offset Printing Co.

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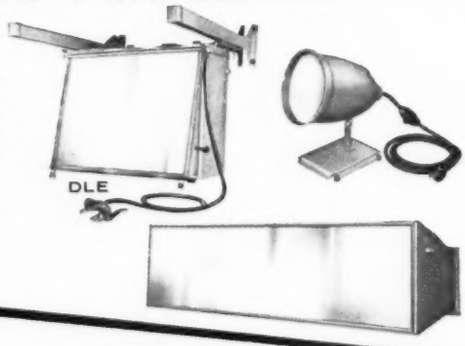
Standard darkroom lights available in a variety of sizes for table, wall or ceiling mounting.



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Detects imperfect halftone dots in positives or negatives . . . takes the guesswork out of platemaking. Pays for itself quickly.

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Gives you sharper contact prints. Its 30 volt, 100 watt pin point light can be adjusted to cover various sized areas. Complete with five-step transformer; manual reset timer.

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MEETINGS for the PRINTING INDUSTRY

American Photoengravers Assn.—1960 Conv., Hotel Statler, Buffalo, N. Y., Oct. 9-12. Exec. Secy. Frank J. Schreiber, 166 W. Van Buren St., Chicago 4.

ANPA-RI Mechanical Conf.—1961 Conf., Palmer House, Chicago (dates to be announced). Mgr. Richard L. Lewis, ANPA-RI Mechanical Dept., 750 Third Ave., New York 17.

Book Manufacturers' Institute — 1960 Conf., Boca Raton Hotel, Boca Raton, Fla., Oct. 19-22. Secy. Miss A. G. Watson, 25 W. 43rd St., New York 36.

Fifth District Craftsmen's Conf.—Secy.-Treas. Avery Schlaghek, 4350 Lyman Rd., Toledo, O.

Flexographic Technical Assn.—1961 Meeting, Hotel Roosevelt, New York, Feb. 9-10. Exec. Secy. Julian Ross, 220 W. 42nd St., New York 36.

Graphic Arts Assn. Executives—1960 Fall Meeting, Washington, D. C., Oct. 21-22, Secy.-Treas. Thomas J. Curran, Exec. Secy. Label Mfrs. Natl. Assn., Inc., 1025 Connecticut Ave., N.W., Washington 6, D. C.

Gravure Technical Assn.—1961 Conv., Hotel Drake, Chicago, Mar. 8-10. Exec. Secy. Edward S. St. John, Room 4800, 30 Rockefeller Plaza, New York 20.

Great Lakes Mechanical Conf.—1961 Conf., Hotel Gibson, Cincinnati, Jan. 22-24. Secy. John E. Innis, R. R. No. 1, Box 546, Indianapolis 27, Ind.

Illinois Newspaper Mechanical Conf.—1960 Conf., St. Nicholas Hotel, Springfield, Ill., Oct. 29-30. Secy.-Treas. Arthur Kramer, Joliet (Ill.) *Herald-News*.

Intl. Assn. of Electrotypers & Stereotypers, Inc.—1960 Conv., Continental-Hilton Hotel, Mexico City, Mexico, Oct. 23-26. Exec. Secy. Floyd C. Larson, 758 Leader Bldg., Cleveland 14.

Intl. Assn. of Printing House Craftsmen—1960 Conv., Hotel Biltmore, Atlanta, Aug. 7-10. Exec. Secy. Pearl E. Oldt, 411 Oak St., Cincinnati 19.

Intl. Graphic Arts Education Assn. — 1960 Conf., University of Houston, Houston, Aug. 18-23. Exec. Secy. Samuel M. Burt, 5728 Connecticut Ave., N.W., Washington 15, D. C.

Intl. Printers Supply Salesmen's Guild—1960 Meeting, Biltmore Hotel, Atlanta, Aug., 5-6. Secy. Harry Deck, 75 E. Wacker Dr., Chicago.

Intl. Typographic Composition Assn.—1960 Conv., Hotel Statler Hilton, Dallas, Oct. 19-22. Exec. Secy. McKinley M. Luther, Washington Bldg., 15th St. and

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New York Ave., N.W., Washington 5, D. C.

Kansas-Missouri Newspaper Mechanical Conf.—Kansas Gen. Mgr., Larry Miller, Kansas Press Assn., 701 Jackson St., Topeka, Kans. Missouri Secy.-Treas. William A. Bray, Missouri Press Assn., 115 Walter Williams Hall, Columbia, Mo.

Lithographers and Printers National Assn.—1961 Conv., Arizona Biltmore, Phoenix, Ariz., Apr. 30-May 5. Dir. Oscar Whitehouse, 1025 Connecticut Ave. N.W., Washington 6, D. C.

Mid-Atlantic Newspaper Mechanical Conf.—1961 Conf., Pittsburgh, (dates in March and Hotel to be announced). Gen. Mgr. G. Richard Dew, 2717 N. Front St., Harrisburg, Pa.

National Assn. of Litho Clubs, Inc.—1961 Conv., (hotel to be announced), Dayton, O., May 4-6. Exec. Secy. Raymond E. Geegh, 1915-33rd St. S. E., Washington 20, D. C.

National Assn. of Photo-Lithographers—1960 Conv., Conrad Hilton Hotel, Chicago, Oct. 5-8. Exec. Dir. Walter E. Soderstrom, 317 W. 45th St., New York 36, New York.

National Paper Trade Assn.—1960 Conf., Conrad Hilton Hotel, Chicago, Sept. 19-21. 1961 Conf., Waldorf Astoria, New York, Mar. 26-29. Exec. Secy. O. Glenn Leach, 220 E. 42nd St., New York 17.

National Printing Equipment Assn., Inc.—1960 Meeting, Sheridan-Park Hotel, Washington, D. C., Oct. 25-26. Exec. Secy. Harry L. Gage, 140 Nassau St., New York 38.

National Safety Council Printing and Publishing Section—1960 Meeting, Conrad Hilton Hotel, Chicago, Nov. 18. Staff Rep. Harry C. Johnson, National Safety Council, 425 N. Michigan Ave., Chicago 11.

New England Daily Newspaper Composing Room Executives Assn.—Exec. Secy. Lewis R. Greene, Westerly (R.I.) *Sun.*

New England Newspaper Mechanical Conf.—1960 Conf., Hotel Statler-Hilton, Boston, Oct. 15-16. Secy.-Treas. Walter C. Crighton, New London (Conn.) *Day.*

Newspaper ROP Color Conf.—Secy. Arthur Brashears, American Assn. of Newspaper Representatives, 141 E. 44th St., New York.

Northwest Mechanical Conf.—Secy.-Treas. Ralph N. Carson, Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis.

Pacific Newspaper Mechanical Conf.—1960 Conf., Multnomah Hotel, Portland, Ore., Sept. 23-25. Secy. Donald Newhouse, Portland (Ore.) *Oregonian.*

Packaging Institute Assn.—1960 Meeting, Hotel Statler, New York, Oct. 31-Nov. 2. Exec. Dir. Chas. A. Feld, 342 Madison Ave., New York 17.

Printing Industry of America—1960 Conv., Hotel Sheraton Park, Washington, D. C., Oct. 24-27. Gen. Mgr. Bernard Taymans, 5728 Connecticut Ave. N. W., Washington 15, D. C.

Research and Engineering Council—1961 Meeting, Hotel Fort Des Moines, Des Moines, Ia., May 22-24. Managing Dir. Robert E. Rossell, 5728 Connecticut Ave. N.W., Washington 15, D. C.

Screen Process Printing Assn., Intl.—1960 Conv., Hotel Sherman, Chicago, Nov. 11-13. Exec. Secy. Robert H. Blundred, 549 W. Randolph St., Chicago 6.

SNPA (Eastern Div.) Mechanical Conf.—1960 Conf., Hotel Dinkler-Tutwiler, Birmingham, Ala., Aug. 14-16. Secy. Walter C. Johnson, Jr., P. O. Box 1569, Chattanooga 1, Tenn.

SNPA (Western Div.) Mechanical Conf.—1961 Conf., Hotel Adolphus, Dallas, Mar. 5-7. Secy. Claude V. Capers, P. O. Box 1569, Chattanooga 1, Tenn.

Southern Graphic Arts Assn.—1961 Conf., Hotel Dinkler-Andrew Jackson, Nashville, Tenn., May 3-5. Secy. Charles E. Kennedy, 1514 South St., Nashville 2, Tenn.

Technical Assn. of the Graphic Arts—1961 Conf., Deshler-Hilton Hotel, Columbus, O., June 12-14. Secy.-Treas. Cyril A. Horton, Research Laboratories, Eastman Kodak Co., Rochester 4, N. Y.

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Interchangeable Slide Matrix and Mold

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Eliminates the buying of separate molds for extra faces. With a Universal Strip Caster you can cast 16 rule faces from a single rule mold. You need only one rule mold for each strip thickness and the slide matrix for the face.

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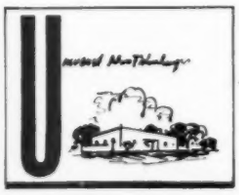

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It was your secret weapon. Your "shooter." With it, you could hit a marble out of the ring at 10 feet. Or clean up the whole pot without missing once.

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The secret weapon we share with you.

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ATLANTIC FINE PAPERS

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ATLANTIC COVER scores well. Folds and refolds without cracking. It is surface-sized on both sides for clear, sharp impressions. Printers get easy feeding and fast delivery because ATLANTIC COVER lies flat. In bright white and eleven sparkling like-sided colors. Antique, Ripple and Deep Etch finishes. One is sure to fill your needs.

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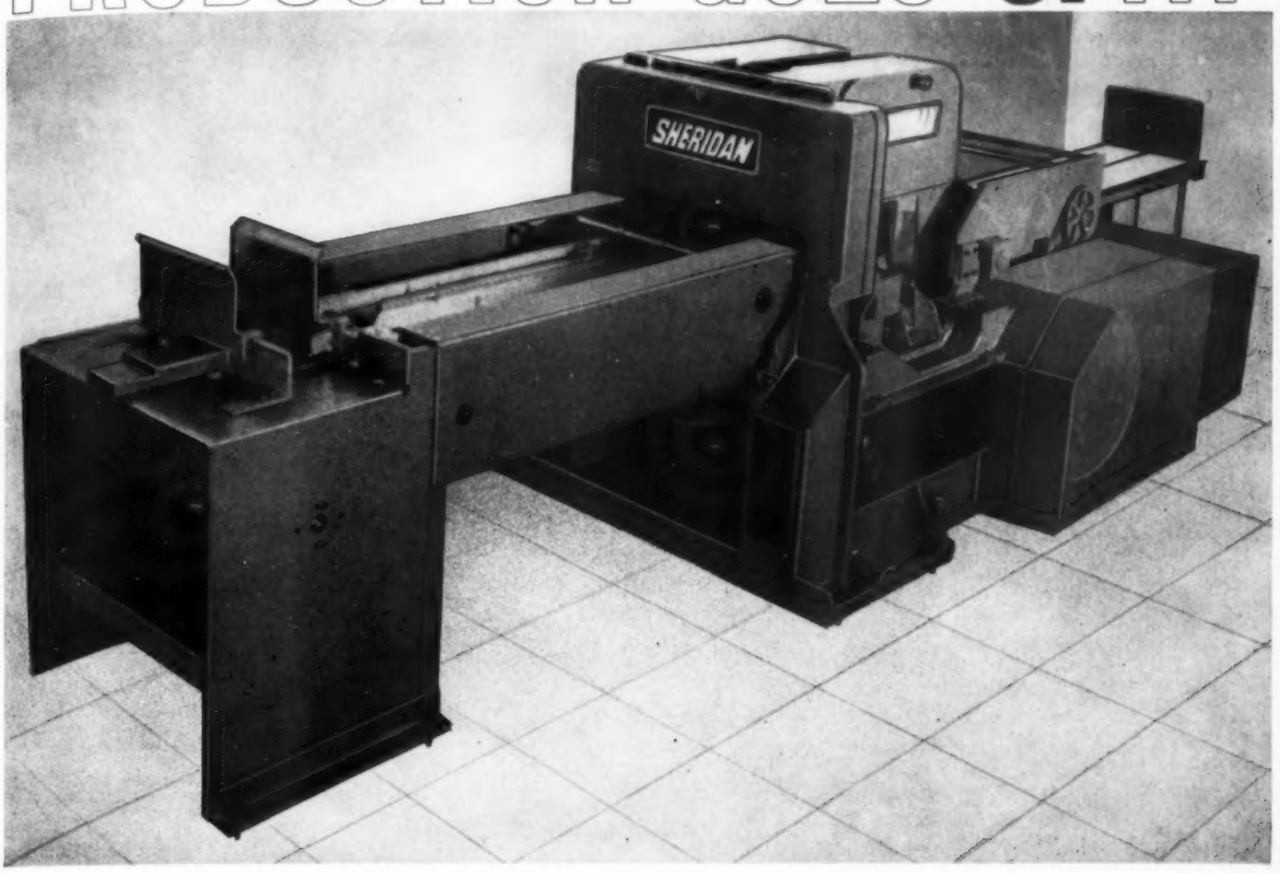
EASTERN FINE PAPER AND PULP DIVISION

STANDARD PACKAGING CORPORATION · BANGOR, ME.

Lithographed on a 52 x 77 Harris 4 color press 30 up at 4,000 IPH. Color sequence was yellow, red, blue, black. Press plates were deep etch aluminum from 175 line screen positives.

PRODUCTION GOES **UP**...



AND COSTS GO **DOWN**

. . . when a new Sheridan Accu-Shear 3-knife trimmer is added to binding and covering line. Now the entire gathering-binding-covering-trimming sequence can be integrated into one continuous operation!

Accu-Shear trimmers are being used successfully in both edition and publication plants, eliminating excess material handling and storage, speeding up delivery schedules . . . cutting costs! Quality has been more than satisfactory.

The standard Accu-Shear has a capacity of 1⅜" thickness in sizes to 17½ x 11½" trimmed, at speeds up to 100 cuts/minute. A 2" capacity model is available.

For even greater production economy, the Accu-Shear can be connected to a Sheridan-Taylor automatic counter-stacker, eliminating manual counting and piling.

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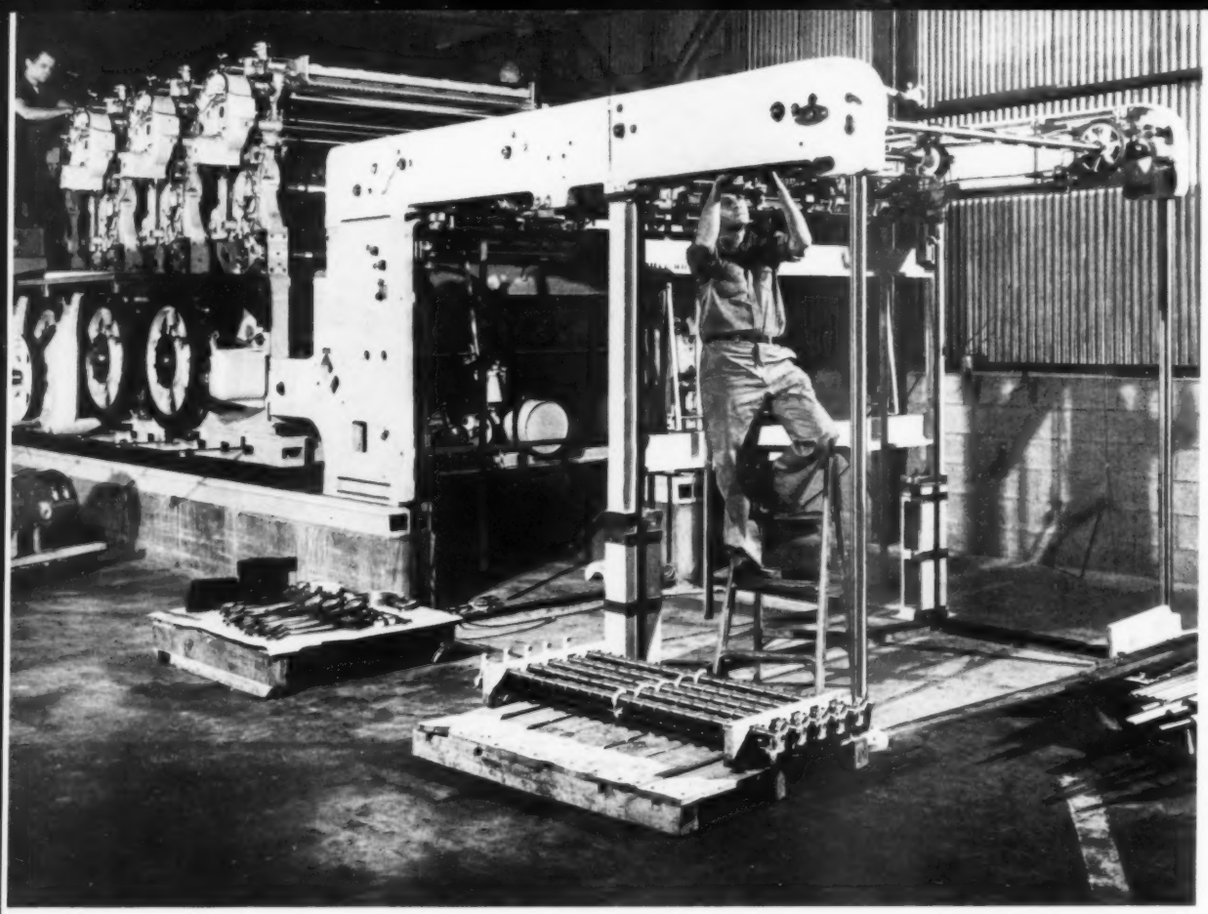
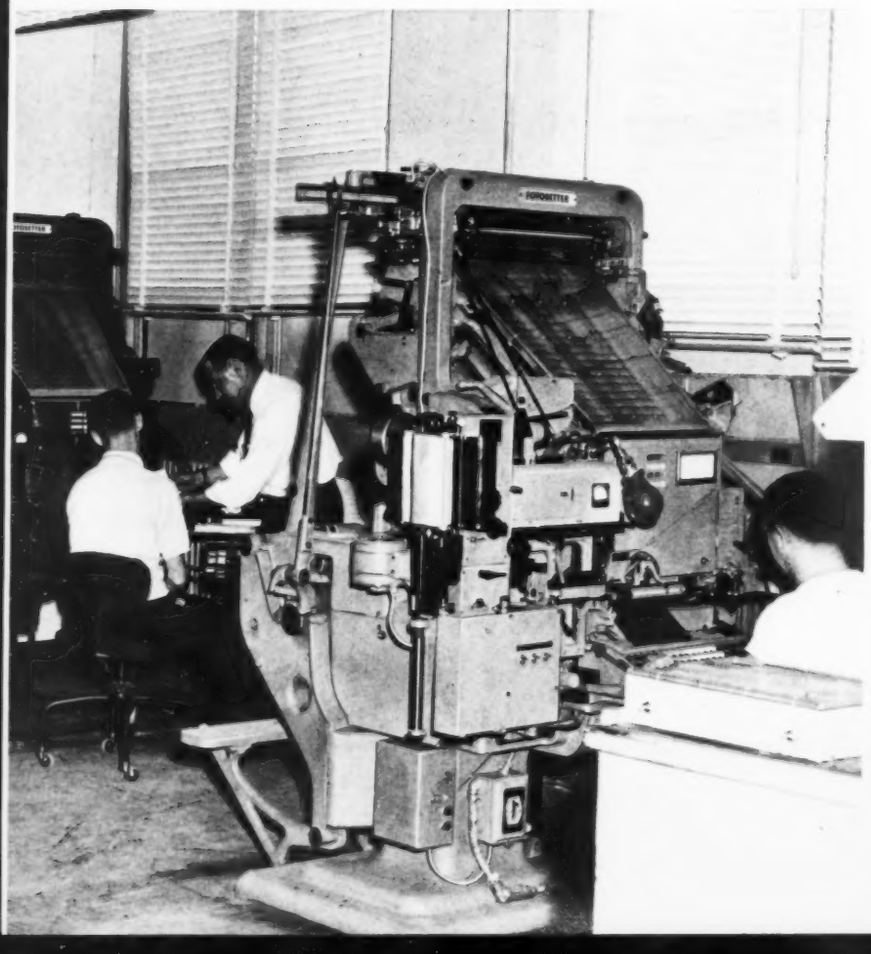
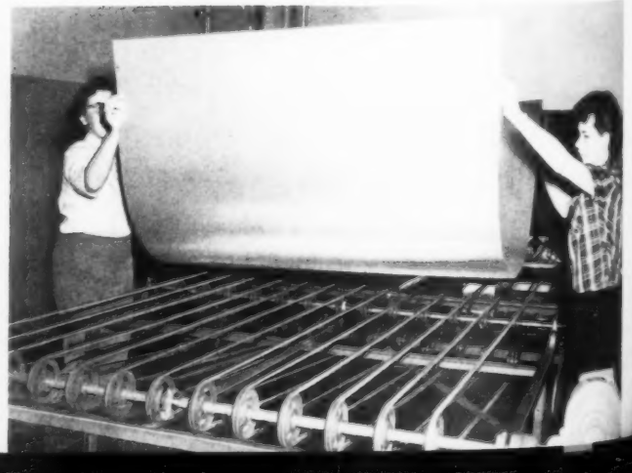


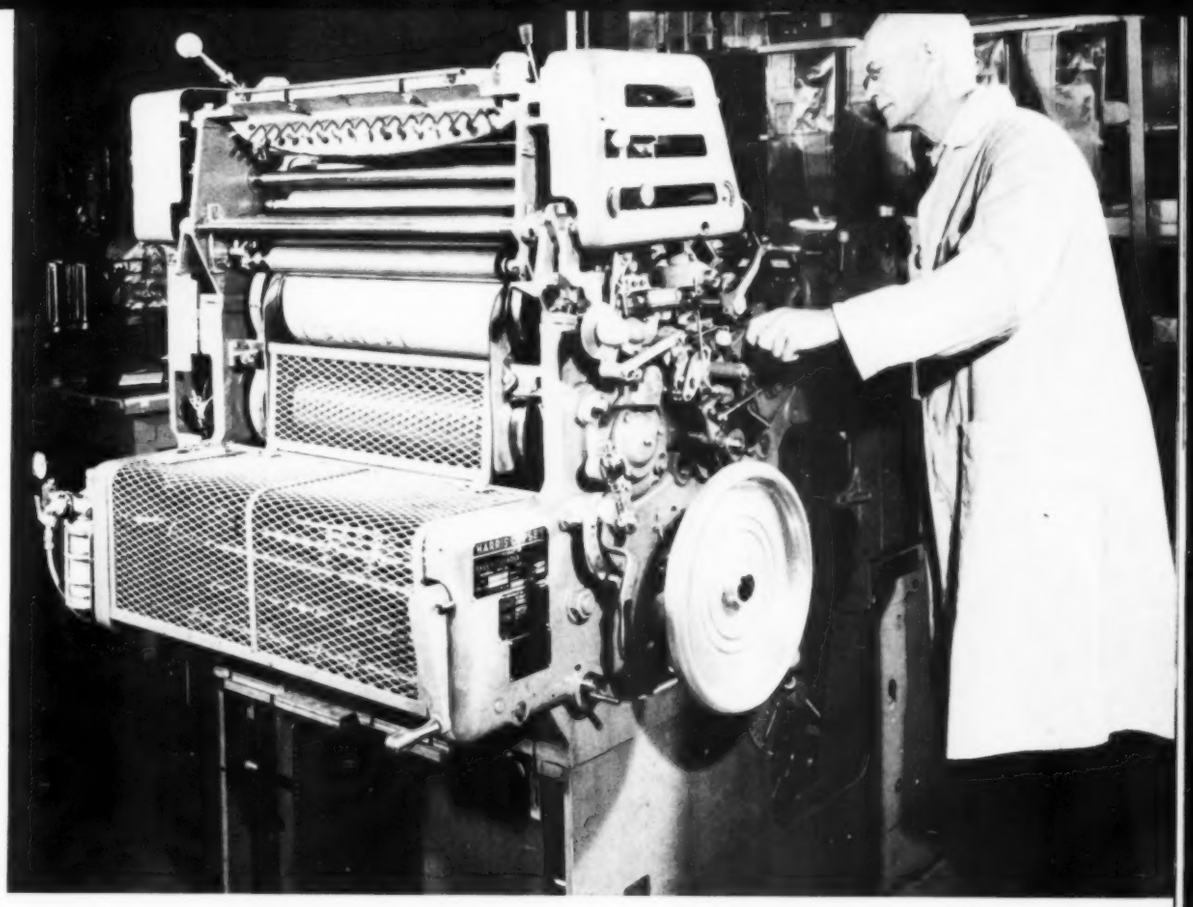
FOR PRINTING MULTI-COLOR cartons exclusively, this new Harris five-color, sixty-inch, double-delivery lithographic press, incorporating *Control Zone Design*, is being installed in the new Container Corporation folding carton plant at Solon, Ohio. The press is raised above the floor to extend feed and delivery piles.

What's going on at



SAFETY OF SHIPS, subs and aircraft depends upon information set on these two Intertype Fotosetters at the U.S. Navy Hydrographic Office, Suitland, Md. Highly specialized type composition for charts and related navigational aids is set on film for maximum clarity and legibility. (Official U.S. Navy Photo)





PRINTING RESEARCH is carried on not only by Harris-Intertype, but by many of its customers such as the Aluminum Company of America. Here at the Alcoa Research Laboratories in New Kensington, Pa., a technician tests and evaluates commercial inks for lithography on foil. The press is a 14″ x 20″ Harris.

HARRIS - INTERTYPE

HARRIS-INTERTYPE CORPORATION

General Office: 55 Public Square, Cleveland 13, Ohio

Harris Presses • Intertype Typesetting Machines • Cottrell Presses • Seybold Cutters • Macey Collators
Lithoplate Chemicals and Sensitized Plates • Gates Broadcasting Equipment • PRD Microwave Instruments

HARRIS INTERTYPE CORPORATION

THE GATES NITE WATCH automatic programming system using the tape transport unit shown at right, and an automatic transcription changer keeps WKY Oklahoma City radio announcer Don Wallace happy. His popular show is taped at his convenience giving him more time for personal appearances.

LARGEST SENSITIZED PLATE ever made, a 58″ x 77″ x .020 Harris Alum-O-Lith offset plate rolls off the coating machine at the new Lithoplate plant in Covina, California. This king-size plate helps illustrate the range of new facilities now permitting production of plates to fit every offset press in use today.

PRECISION UNLIMITED... Bolometers shown on this test stand at PRD Electronics, Inc., are used for precise microwave power measurements. PRD, a leading manufacturer of microwave and other electronic instruments, serves government agencies and the communications industry.

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Make Short Runs Pay Off! Start Fast, Finish Fast With Miehle Vertical Stand-Up Operation

Don't let lost motion and operator fatigue rob you of profits on short runs. The Miehle Vertical makes the pressman's job easier...lets him set up and run in a comfortable, stand-up position...enables him to do more short run jobs *faster*.

There's no stretch on the Vertical when loading the feeder or when making ready on the cylinder. There's no bending or squinting at the delivery when inspecting sheets or removing the load. This is true *stand-up operation*.

And remember, the Miehle Vertical is still the only real job press. It does just about everything ...short runs, long runs, color work, imprinting, envelopes, numbering, perforating, scoring, two-sheet printing, simple forms...and does them all *at a profit*.

Make *your* next job press a Miehle V-50 Vertical.

THE MIEHLE COMPANY
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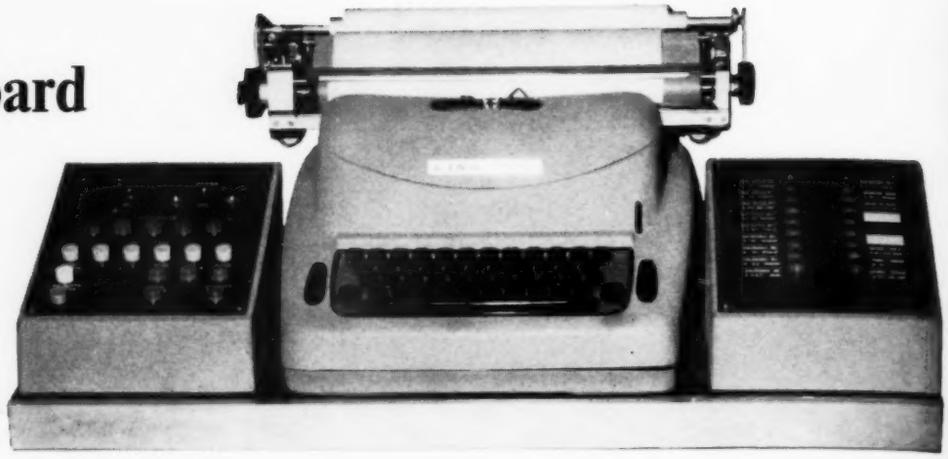
at this keyboard



an operator

plays the

sweetest music a publisher can hear

With this Linofilm Keyboard, an operator has instantly at his fingertips, 18 different type fonts, each in a size range from 6- through 36-point. And every typographic function, including centering, quadding, justifying, letterspacing, even kerning, also is controlled by a touch of the finger. Operators can produce Linofilm tapes at *typing speeds*.

The operator always sees his work as typescript for proofing or copyfitting; he can erase any line immediately. To handle last minute alterations, finished tape may be spliced before feeding into the Photo Unit.

Unheard-of economies in typographic production are the result.

The Linofilm Keyboard, important as it is, is but one link in Linofilm, the world's only photocomposition *system* (and the world's most useful, most economical photocomposition method).

Separate Keyboard and Photographic Units

It just doesn't make sense to limit photo unit productivity to one operator at one keyboard. So Linofilm has a completely independent and *fully automatic* Photographic Unit, capable of handling output of up to five keyboards. These produce tape which carry all information needed to produce crisp, black type on photographic paper or film. In lines up to 42 picas, photography is at the rate of 720 *characters per minute*, from 6- through 36-point!

Even Makeup is Automatic on the Composer

Although "fascinating" is most often used to describe the Linofilm Composer, "economical" or "simple" or "fast" are as accurate. It performs *all functions* of a makeup department! Type is placed precisely—even at angles up to 90°—as the layout indicates. Minute size variations, from 4- to 216-point, are produced instantly. All this up to full newspaper-page sizes! Because the operator works right on the original layout, the job is right—and ready for the platemaker's camera—when it leaves the Composer.

Exclusive Linofilm Unit Makes Corrections Easy

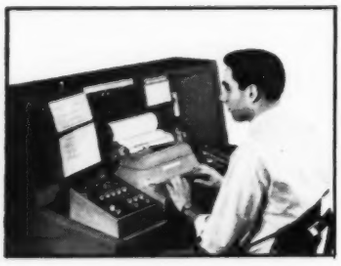
All the tedious, laborious, inaccurate chores that other methods require to alter and correct film have been eliminated by the Linofilm Corrector. *Automatically,* the Corrector replaces revised or corrected lines or paragraphs. Welding creates a bond stronger than the film itself, and no opaquing is needed.

Only Linofilm Offers All These Features

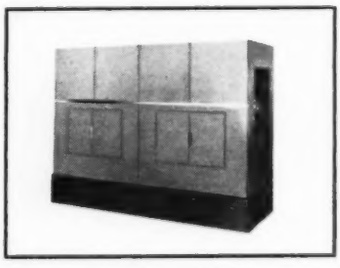
No other coldtype method includes equipment even remotely comparable to Linofilm's Composer or Corrector. And no other method approaches the savings in initial investment and hourly operations that are Linofilm's. All this . . . plus superior typography and utmost flexibility in combining units to meet your specific production needs.

With all these advantages, can you afford not to investigate Linofilm thoroughly? Get in touch with your Linotype representative, or write to Mergenthaler Linotype Company, 29 Ryerson Street, Brooklyn 5, New York.

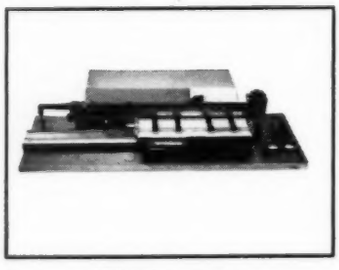
LINOFILM *system*



The Keyboard



The Photo Unit



The Corrector

The Composer

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Simply by adopting Chemco Roll Film and roll film methods you can reduce present sheet film costs up to 30%. What's more, you will also increase your negative production and reduce film waste and spoilage. ¶ If these promises of improved efficiency in your camera department intrigue you, then write or phone us for the complete story.

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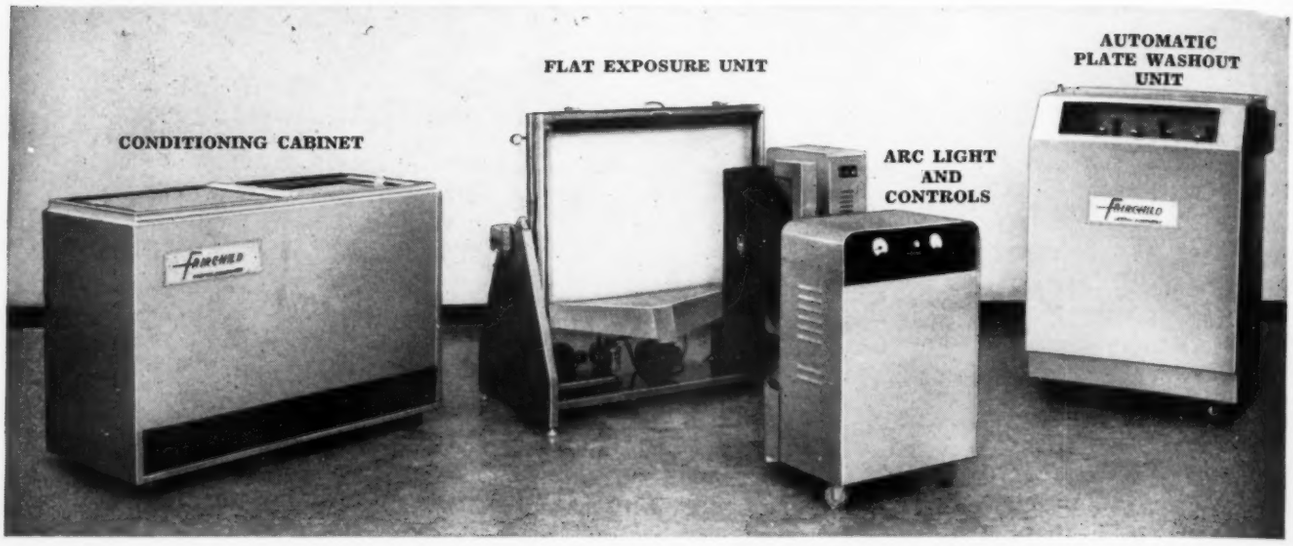
THE FAIRCHILD



FAIRCHILD EQUIPMENT FOR PROCESSING DYCRIL* PLATES REFLECTS UNMATCHED EXPERIENCE GAINED SINCE 1955

Du Pont's recent decision to produce Dycril photopolymer printing plates on a commercial scale spotlights Fairchild's pioneering experience as the earliest and now the leading source of the processing equipment for these plates.

Following Du Pont's request in 1955, Fairchild designed and built the first automatic exposure and washout units. Since then, working closely with Du Pont, Fairchild has continued building units designed to keep step with the technological advances being made in Du Pont's Dycril plates.

Fairchild installations now in actual operation include Beck Engraving Co., Philadelphia; City Electrotype Co., Detroit; Container Corporation of America, Mannyunk Plant, Philadelphia; Crier Cut Service, Minneapolis; R. R. Donnelly, Chicago; Drury Printing Co., Dayton, Ohio; Du Pont Photoproducts Research Laboratory, Parlin, N. J.; Du Pont Printing Development Plant, Philadelphia; Du Pont Printing Plant, Philadelphia; W. F. Hall, Chicago; Industrial Engraving Co., Easton, Pa.; Litho Composition & Plate Co., Boston; and Typo Service, Philadelphia, among others.

In addition, pending installations include Acme Printing Co., Everett, Mass.; Foilcraft Printing Corp., Brooklyn, N. Y.; Plimpton Press, Norwood, Mass.; and Primary Color, Inc., New York City, N. Y.

Featuring automatic operation and push-button control, Fairchild equipment processes line, halftone, or combination plates with a single alkaline-solution bath. Plug-in components — unitized for easy servicing — are interchangeable between various models of the Fairchild equipment.

Du Pont's trademark for its photopolymer printing plates

PRINTING INDUSTRY NOW RANKS AS ONE OF TOP TEN USERS OF LEASED EQUIPMENT

More and more printers are taking advantage of the benefits of leasing. At the end of 1959, for example, there was approximately $20,000,000 worth of production equipment on lease to the printing and publishing industry, and indications are that this trend toward leasing will be an accelerating one. The reasons are important in today's highly competitive situation.

Most of all, profits are earned through the *use*, not the ownership of equipment. Leasing frees working capital that would ordinarily be tied up in purchase, thus permitting it to be used more profitably for expansion, investment, or other purposes. Leasing also reduces the risk of loss caused by rapid obsolescence of specialized equipment.

Another reason is service. In the case of its Scan-A-Graver® and Scan-A-Sizer®, Fairchild provides the services of 45 electronic engraving specialists from coast to coast to look after every leased machine. These Fairchild Customer Engineers make regular preventive maintenance calls and maintain the equipment "like new" for the life of the lease. All worn parts are replaced without cost.

Important, too, is a continuing program of product improvement, the results of which are incorporated in every leased machine to assure the user of up-to-date equipment. Moreover, equipment rental is a tax deductible item.

TYPE FONTS QUICKLY CHANGED WITH TTS® MULTIFACE PERFORATOR

Since book and job composition require many type faces, the Multiface Perforator is designed with removable matrix width (brass width) counting magazines that assure accurate line justification. They are easily changed in a few seconds. Magazines are provided to count any font of matrices from 5½ to 14 points.

For More Information Circle 58 on Reader Service Card

GRAPHIC

IDEAS AND INFORMATION FOR THE GRAPHIC ARTS INDUSTRY

SETS 24 GALLEYS OF MIXER COMPOSITION PER MACHINE PER SHIFT WITH TELETYPESETTER®

J. N. Anzel holds TTS tape produced by a single Perforator operator in one shift, and shows the amount of type it sets automatically.

J. N. Anzel, N. Y. trade compositor, gets 3 times more type output than with manual operation — automatically

Now many typesetters and printers — like hundreds of newspaper plants in the U. S. and abroad — are finding they can increase linecasting machine output up to 3 times with Teletypesetter.

For example, at J. N. Anzel, Inc., a New York compositor, TTS economies pay off handsomely. Anzel says his TTS equipment has required a minimum of service over many years.

Some of the jobs especially suited for TTS linecasting include court briefs, telephone and business directories, voter lists, text, trade and pocket books, rate and data guides, imprints, personalized checks, and many others.

TTS® performs typesetting magic

Teletypesetter permits automatic composition, hour after hour, at the maximum speed of the linecasting machine. Operation is easy. Any good touch typist can quickly learn to punch tape at high speed on the TTS Perforator — which records letters, characters and composing machine functions by means of perforations in a strong paper tape.

Automatic linecasting is accomplished by means of the TTS Operating Unit conveniently mounted beneath the linecasting machine keyboard. As the Operating Unit "reads" the tape, it automatically translates the perforations into functions normally carried out by manual operation. Because the system is mechanical, present personnel can service it without difficulty.

Teletypesetter is being used by typesetting companies, book and magazine publishers, specialty shops, other commercial printers. It not only gives them more type in less time at lower cost, but also provides savings in metal inventories and storage space.

FREE TTS MAINTENANCE COURSE EXPANDED TO 3 WEEKS

As part of its service to Teletypesetter customers that goes beyond equipment purchase, Fairchild has for years conducted a tuition-free school at its Plainview, L. I., plant. Now, to permit even more extensive training for customers' maintenance personnel, classes have been extended to 3 weeks. Subjects covered include theory of operation, adjustments of Perforator and Operating Unit, disassembly and reassembly of principal units, and recommended trouble-shooting procedures.

FAIRCHILD GRAPHIC EQUIPMENT

Division of Fairchild Camera and Instrument Corp.

District Offices: Eastchester, N.Y.; Atlanta, Ga.; Chicago, Ill.; Los Angeles, Calif.; Toronto, Ont.

Fairchild Graphic Equipment, Dept. FGE-12
Fairchild Drive, Plainview, Long Island, N. Y.

Please send me descriptive literature on:

- ☐ Dycril plate processing equipment
- ☐ Teletypesetter
- ☐ Fairchild leasing plan
- ☐ Multiface perforator

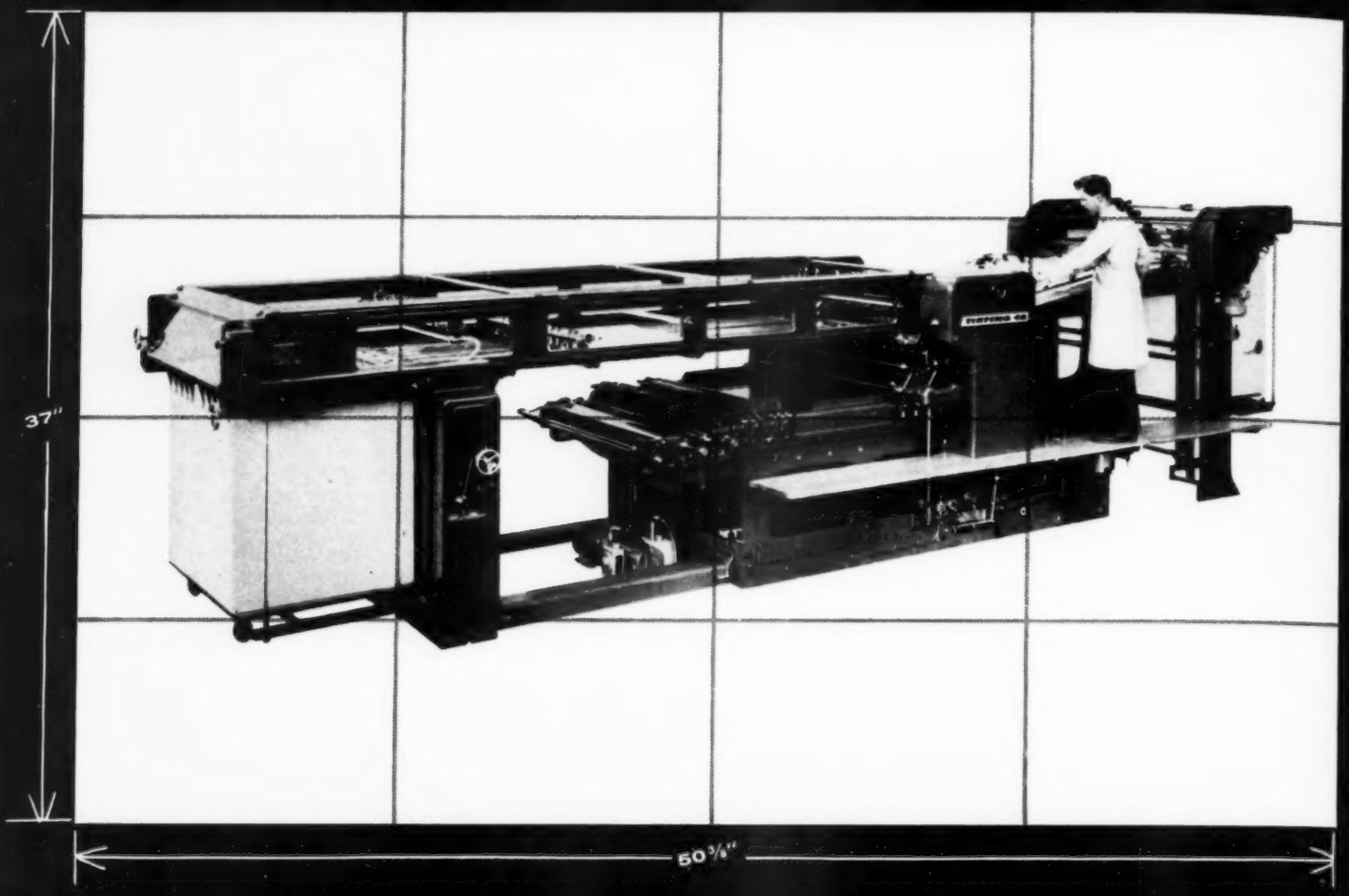
Name.....

Company.....

Street.....

City.....Zone....State.....

For More Information Circle 171 on Reader Service Card



Now...

you can run 16 page forms at MODERN production speeds!

The new TIRFING 48 brings profitable production speeds to the publication printer.

	Sheet size	Maximum speed
TIRFING 48	37" x 50⅜"	3,000 IPH
TIRFING 41	31" x 41"	4,000 IPH
VIKING 48	37" x 50⅜"	3,000 IPH

Here is real news for the publication and house organ printer. The new TIRFING 48 takes a 16 page sheet of the most popular publication sizes — and *it runs these forms at speeds up to 3,000 impressions per hour.* This up-to-date letterpress has all the modern features of the famous high-speed TIRFING 41, including stream feeder, transfer grippers and chain delivery.

Designed expressly for maximum production and quality printing, the TIRFING 48 might be the answer to your production problems. Write today for full information.

TIRFING PRINTING MACHINERY, INC.

400 DELANCY STREET, NEWARK 5, NEW JERSEY
TELEPHONE: MARKET 3-7779

K-181 VARIO-KLISCHOGRAPH enlarges or reduces, screens, color-separates, color-corrects and engraves in one operation. Reproduces line work or halftones up to 133 screen, color or black and white. Delivers plates as large as 12" x 16¾". Engraves virtually every stereo or engraving material. Choice of four interchangeable screens from: 65, 75, 80, 100, 120, 133.

Whatever you engrave...

A Hell Klischograph can save you money!

Whether you work with color-reflection copy or transparencies, black and white, coarse screen, fine screen or line work, you can save money with a Klischograph electronic engraver.

Color copy? Use the K-181 Vario-Klischograph. Black-and-white halftones? Easy to handle with the K-181 or K-150. Coarse, medium or fine line engravings? Look into the S-240. Each offers you the money-, time- and labor-saving advantages of electronic engraving . . . plus operating features no other such engravers provide. A few of these advantages are outlined for you in the photo captions. It will be worth your while to study them.

Today, HCM's dealer organization offers Klischograph users prompt, expert service nation-wide. For complete details on this service plus full information on each Klischograph model, write today.

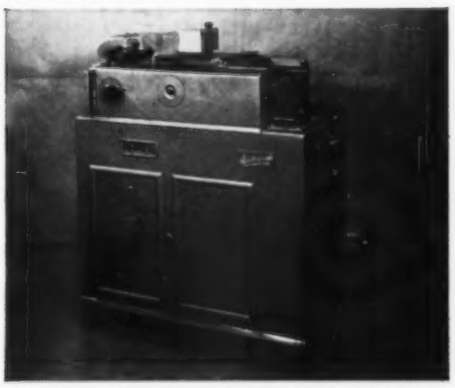
HELL KLISCHOGRAPHS ("Klee-show-grafs")

DISTRIBUTED EXCLUSIVELY IN THE U.S. BY:

HCM CORPORATION

80 Varick Street
New York 13, N. Y.

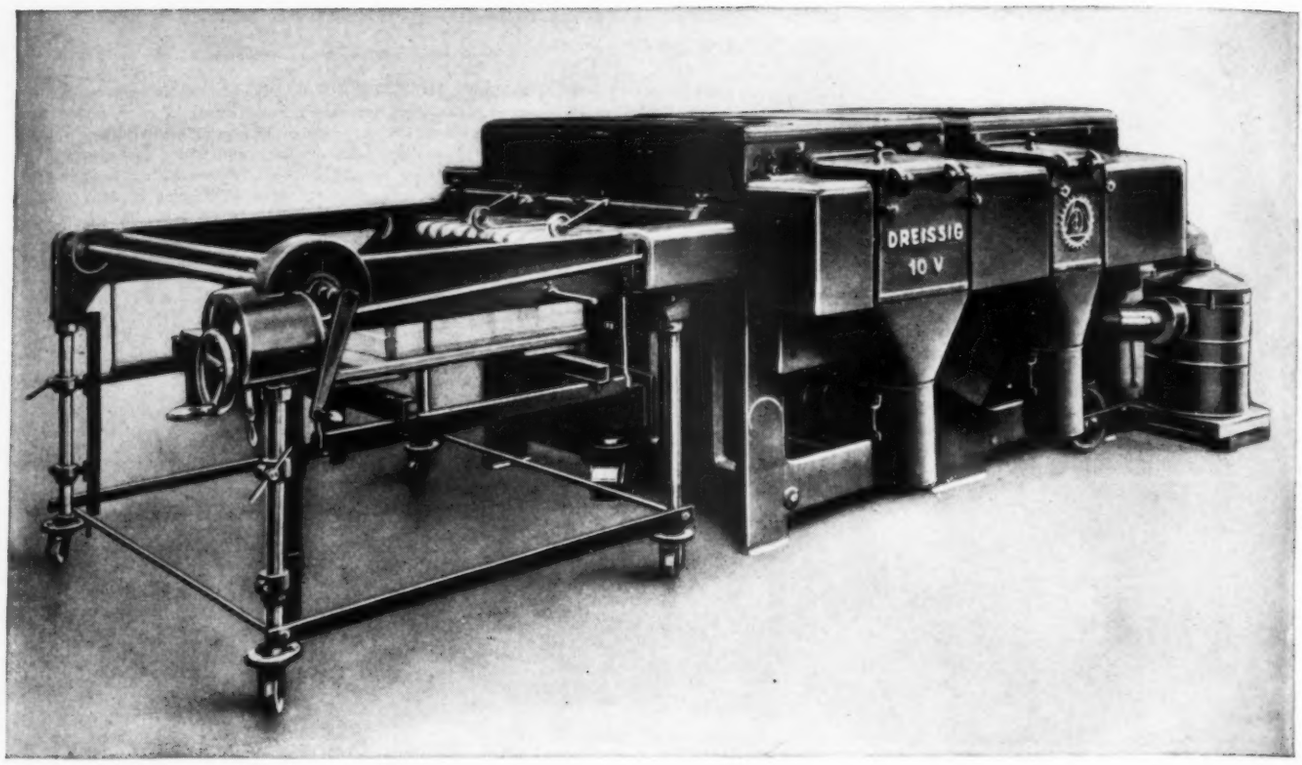
K-150 KLISCHOGRAPH turns out excellent black-and-white halftones, coarse or fine screen, even from poor originals. Produces a 65-screen, 6" x 8" plate in only 18 minutes. Ideal for engraving plastic, aluminum, practically every stereo or engraving material. Choice of 60, 65, 75, 80, 100 or 120 screen. Dual-screen models also available.



S-240 KLISCHOGRAPH offers you quality reproductions of coarse, medium or fine line art. Compensates for poor originals. Special three-way contrast switch for cartoons, sketches, diagrams, type sizes from 5 pt. Produces plates up to 10" x 10". Excellent engraving results on virtually every stereo or engraving material. Three interchangeable feeds: 180, 240 and 360 li. per in. Only all-line machine you can use.

For More Information Circle 85 on Reader Service Card

←*For More Information Circle 174 on Reader Service Card*



DREISSIG

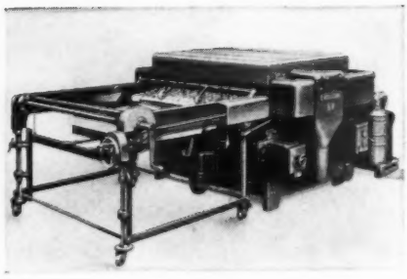
Bronzing Machines

THE KOMBI 10V

The latest and most modern bronzer, the DREISSIG KOMBI 10V, a high speed bronzing and dusting machine, is designed for use in Tandem with either offset or letterpress equipment. Also available for operation from roll to roll. The maximum sheet size is 55" x 80".

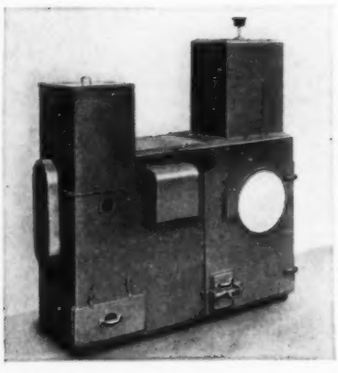
- **Section One** is a bronze applicator which includes six burnishers and four dusting bands.
- **Section Two** consists of four additional burnishers, six dusting bands and two sets of upper and lower dusting-off rollers.

Two additional models of DREISSIG BRONZERS are available. The Dreissig 6V with 6 burnishers and 6 dusting-off bands and the Dreissig D6 with 4 burnishers and 6 dusting bands.



Write today for

free descriptive literature



DREISSIG BR is a new concept in bronze cleaners and sifters. It not only eliminates vibration, and therefore the need for lubrication, but also produces the cleanest, loosest bronze powder possible.

HENRY P. KORN

ASSOCIATED, INC.

5 Beekman Street, New York 38, N. Y.

Telephone: REctor 2-5808

For More Information Circle 98 on Reader Service Card

FIRST CHOICE, wherever versatile dependability is foremost.

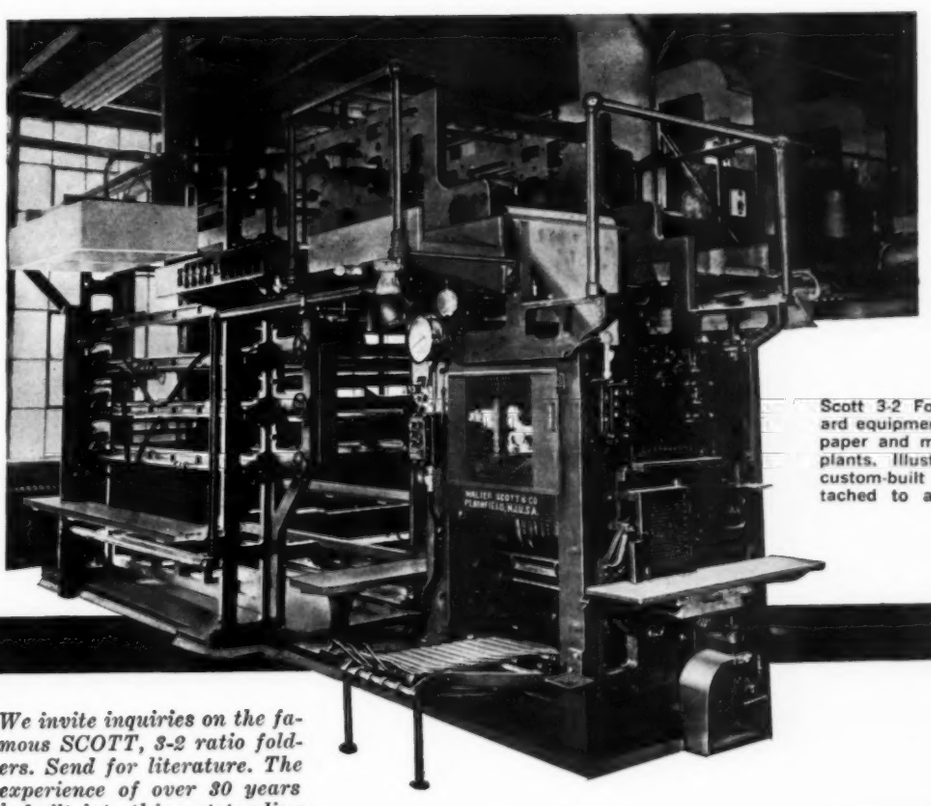
Built to meet today's requirements for high-speed press production. Simple in design, efficient and dependable in operation . . . SCOTT 3-2 Ratio Folders are *first choice* among publishers and printers who require, and demand, the best!

Available in custom-built models to meet any requirements, equipped with such engineering features as:

- Capacities up to 128 full size pages with either cut or folded edge forward.
- Equipped with tabloid slitter.
- Safety coupling and automatic "kick-out" clutch to prevent paper chokes.
- Chrome plated parts.*
- Special angle bar structure for utmost flexibility of page positioning in the product.
- Air-blown type angle bars and former.*
- Slitter, speeds up to 50,000 P.P.H.

*(optional)

THE FAMOUS SCOTT 3-2 RATIO FOLDER



Scott 3-2 Folders are standard equipment in many newspaper and magazine printing plants. Illustration shows a custom-built 3-2 Folder attached to a gravure press.

We invite inquiries on the famous SCOTT, 3-2 ratio folders. Send for literature. The experience of over 30 years is built into this outstanding folder.

SCOTT presses

WALTER SCOTT & CO.

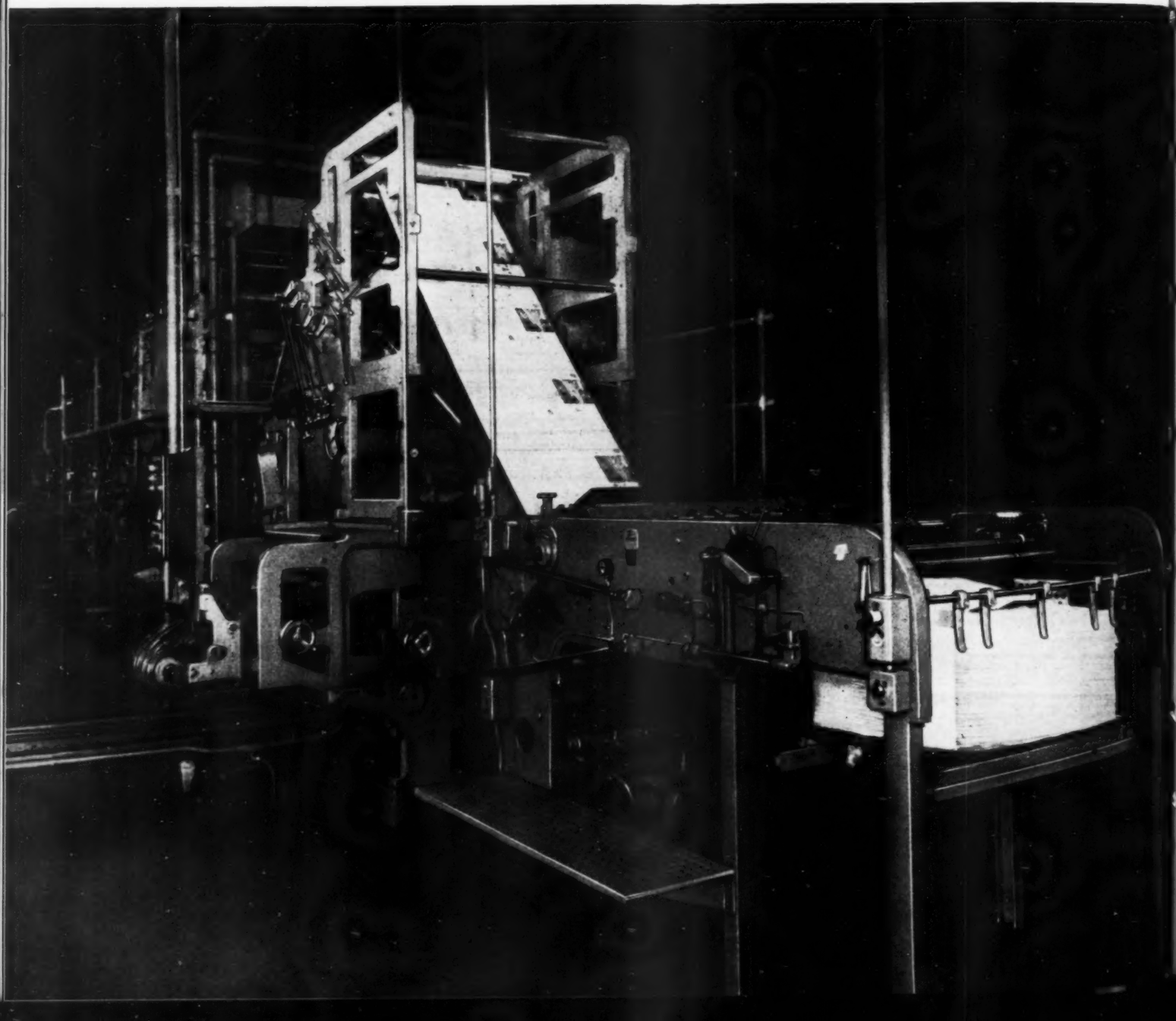
DIVISION OF WOOD NEWSPAPER MACHINERY CORPORATION Plant: Plainfield, N. J.

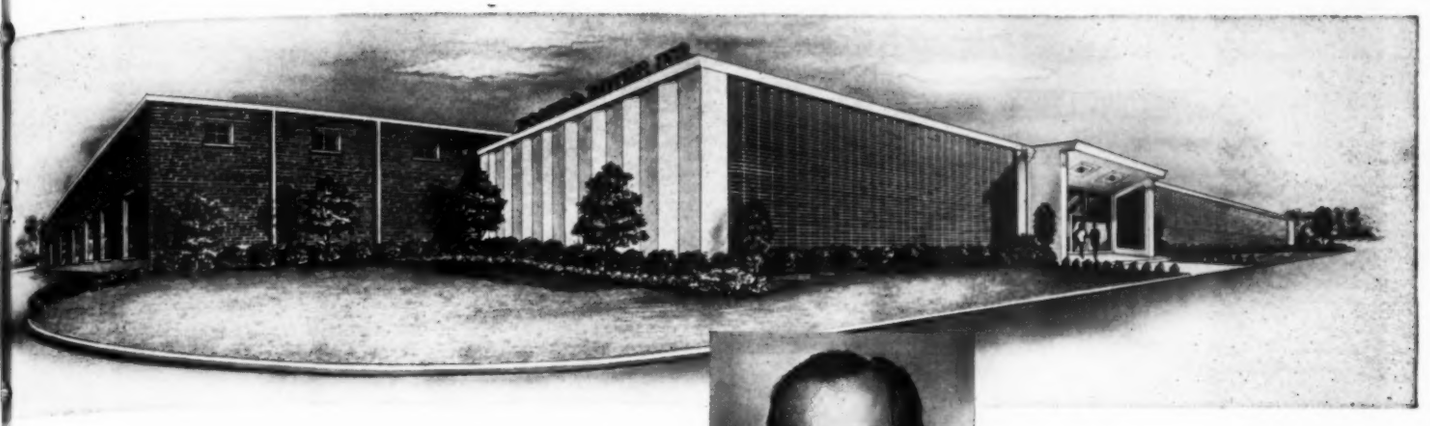
EXECUTIVE & SALES OFFICE: 501 FIFTH AVENUE, NEW YORK 17, N. Y.

BUILDERS OF PRESSROOM AND REELROOM MACHINERY AND EQUIPMENT SINCE 1875

For More Information Circle 156 on Reader Service Card

"We produce highest-quality process color on coated stock with our ATF Web





Foote & Davies' modern plant in Atlanta, (inset) *Albert Love, President*

Publication Press,"

says Foote & Davies, Inc., Atlanta, Georgia.

Foote & Davies installed this high-speed 22¾ x 35" press—their first web-fed press—when they moved into their new, modern plant a year ago. This publication press is equipped with four roll stands, four perfecting printing units, dryer, a high-speed heavy-duty folder, a precision sheeter, an imprinting unit and a bundler. It can print eight colors simultaneously—four colors on each side of one roll of paper, or two colors on both sides of two rolls, etc. Press flexibility permits Foote & Davies to print more than one job at a time.

Frank Majors, Vice President in charge of Production, reports, "The quality of the products turned out by this press—whether folded signatures or flat sheets—is, in most cases, equal to the products of our sheet-fed presses. And many of these jobs are four-color process printed on both sides of coated stock, at better than anticipated speeds."

ATF Web Publication presses are made in a variety of sizes. All are built on the unit principle, to let you add printing and finishing units as your business increases.

We will be glad to send you an illustrated brochure describing these publication presses.

ATF

200 Elmora Avenue, Elizabeth, New Jersey

American Type Founders

ATF Type Faces used in this advertisement: Headline Craw Clarendon, Text and Captions Bodoni Book with Italic.

For More Information Circle 10 on Reader Service Card

no slip...no slide...no skid ...with A.W. ALGRIP abrasive flooring

Be sure of safe footing at the hazardous places in your plant. You know where they are . . . wherever slipping, sliding and skidding occur. Now your slippery spots can be your safest spots . . . with A. W. ALGRIP flooring.

Here's a rolled steel floor plate that's made by an Alan Wood patented process in which an abrasive is embedded to a controlled depth . . . becoming an integral part of the steel plate, to give you lasting safety.

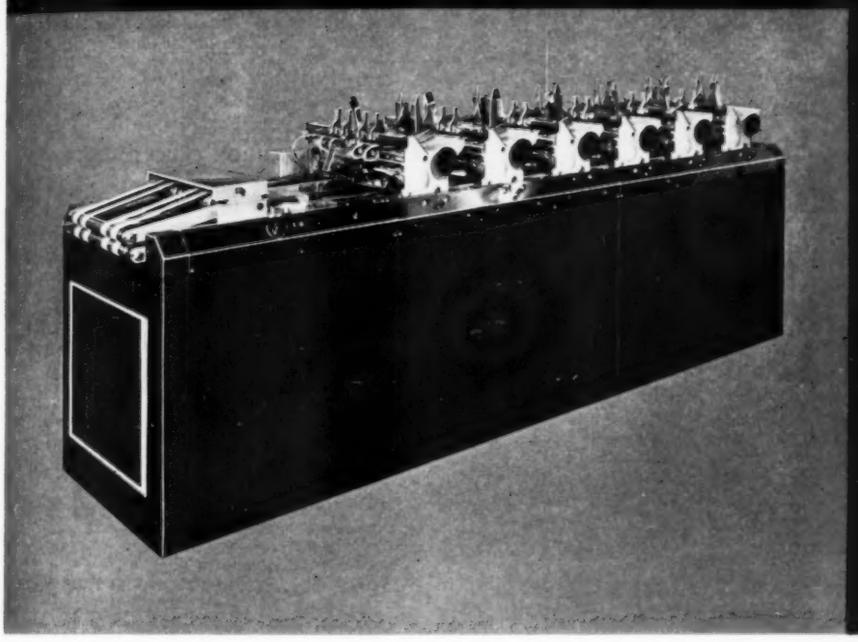
A. W. ALGRIP can be used as independent flooring . . . or as flooring overlay. Put your plant on a safe footing, with A. W. ALGRIP . . . Approved for Safety by Underwriters' Laboratories. Write for Bulletin AL-S5

ALAN WOOD STEEL COMPANY
CONSHOHOCKEN, PA.

DISTRICT OFFICES: Philadelphia • New York • Los Angeles • REPRESENTATIVES: Atlanta • Boston Cincinnati • Cleveland • Detroit • Houston • Pittsburgh • Richmond • St. Paul • San Francisco • Seattle Montreal, Toronto and Vancouver, Canada—A. C. Leslie & Co., Ltd.

For More Information Circle 4 on Reader Service Card

gather-all



* No-stop Loading * Continuous One-direction Stock Movement * Bottom Vacuum Feeders * Micromatic Miss or Double Detectors * Simple Setup * Operating Speed 6,000 Sets Per Hour * Size — Signatures: (4 to 64 pages) 4″ x 6″ to 9½″ x 12½″. Sheets: (16 lb. and up) 5″ x 8″ to 9½″ x 14″.

The new Gather-all Collator is designed as a labor-saving, cost-reducing collator of folded signatures, sales manuals, instruction booklets, price sheets, pamphlets, and mailing pieces. The Gather-all is a compact modular collator built in three- and four-station add-on units. This efficient machine operates on the highly successful continuous rotary conveyor system. Once stock is in motion, the direction is never changed... and the motion is never stopped. Only three main moving parts at each station in feeding operation makes for very simple operation. Additional three- or four-station units may be added to the Gather-all in your plant. When coupled with a stitcher, creeper, criss-cross, or other delivery attachments, the Gather-all becomes a complete, compact, bindery in itself. A request on your letterhead will bring complete specifications.

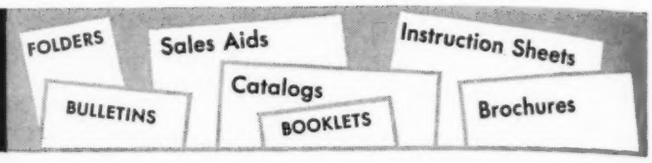
DIDDE-GLASER, INC. — General Office and Factory: Dept. PP8, 50 Hi-Way and W. 12th Ave., Emporia, Kansas. Sales and Service Offices in New York, Chicago, Los Angeles.

Didde-Glaser, INC
Emporia, Kansas

DESIGNERS • MANUFACTURERS AND DISTRIBUTORS OF GRAPHIC ARTS EQUIPMENT

For More Information Circle 53 on Reader Service Card

HELPFUL LITERATURE



Circle Numbers on Reader Service Card in This Issue

Keep Yourself Informed. The folders and bulletins listed below all pertain to modern equipment, supplies, processes and/or methods. These have been prepared especially for plant managers, superintendents and foremen. Please circle the numbers on the Reader Service Card in this issue for the bulletins you wish to receive. Drop the self-addressed card in the mail. PRINTING PRODUCTION will forward your request.

Composing Room

HEADLINES FROM THE KEYBOARD

A booklet entitled *Headlines from the Keyboard* has been published by Mergenthaler Linotype Co. According to the booklet, 42 different headlines may be formed from four fonts of Spartan Bold. Additional means of expanding the four fonts are also suggested. Circle No. 316 on Reader Service Card.

NOLAN REMELT EQUIPMENT

Information on the Remelter and Meltevator has been prepared by Nolan Corporation. Circle No. 324 on Reader Service Card.

MONARCH LINECASTING MACHINE

A brochure giving the specifications of the Monarch linecasting machine has been made available by Intertype Company, Div. of Harris-Intertype Corp. One feature of the Monarch is that it has no keyboard. Reportedly, the unit is rated at 750 impulses per min. Circle No. 308 on Reader Service Card.

LUDLOW SPECIMEN SHEETS

Specimen sheets of Ludlow type faces have been made available by Ludlow Typograph Co. Included on the sheets are display types ranging from 12 pt. to 96 pt. in size. Circle No. 323 on Reader Service Card.

Platemaking

STEREO COLOR EQUIPMENT

Information has been prepared on its line of stereotype color equipment by Sta-Hi Corporation. Equipment described includes the Master matcher which reportedly gives image-to-image comparison of actual printing areas, the Master trimmer which can be used in conjuction with the matcher, and the vacuum flat former for drying and flat-forming color mats. Circle No. 320 on Reader Service Card.

FAIRCHILD ENGRAVINGS

Details on Scan-A-Graver engraving process and Scan-A-Plate engraving material are found in a booklet issued by Fairchild Graphic Equipment, Div. of Fairchild Camera and Instrument Corp. The booklet is entitled *Pictures Like These.* Circle No. 329 on Reader Service Card.

FLIP-TOP PLATEMAKER

The Flip-Top platemaker is described in bulletin A500PP issued by nuArc Company, Inc. The unit is available in models measuring from 13 in. by 18 in. to 50 in. by 62 in. Circle No. 325 on Reader Service Card.

KENRO VERTICAL CAMERAS

A four page booklet describing the Vertical 18 in. and Vertical 24 in. cameras has been made available by Kenro Graphics, Inc. The cameras incorporate 500 W. Quartzline lamps and the Color-Tran converter. Circle No. 317 on Reader Service Card.

POWDERLESS ETCH ATTACHMENT

A curved plate attachment kit for the Standard M-32 powderless etching machine is described in literature prepared by Master Sales & Service Corp. Reportedly, the attachment allows the etching of flat, curved, wrap-around and cylinder plates in the powderless etching machine. Circle No. 321 on Reader Service Card.

GOODKIN MODEL A CAMERA

The Model A camera is described in literature prepared by the M. P. Goodkin Co. The camera has a 24 in. by 24 in. focal plate, a 27 in. by 32 in. copyboard and provides enlargements to 4 X. Circle No. 314 on Reader Card.

BEVERIDGE AUTO-PACK MATS

Information on and samples of Auto-Pack packless mats are available from Beveridge Paper Co. Reportedly, the mats retain 0.030 to 0.035 space depth, from 0.040 form depth. Circle No. 331 on Reader Service Card.

BACKING FOR STEREO MATS

Details on the Tenanon backing sheet for stereo mats have been made available by Tenak Products Co. Reportedly, Tenanon is not affected by temperature or humidity changes and controls mat shrinkage. Circle No. 322 on Reader Service Card.

HAMMOND STEREO EQUIPMENT

Literature has been made available on stereo equipment manufactured by Hammond Machinery Builders, Inc. Included is information on the Easy Kaster, scorcher, radial router and plate shaver. Circle No. 334 on Reader Service Card.

DATA ON MAKING COLOR SEPARATIONS

Color Separation from Reflection Copy has been published in a revised edition by Eastman Kodak Co. The 48 page publication explains techniques of making color separation negatives from reflection copy. It is available through Kodak graphic reproduction dealers at the price of 1 dollar.

SOLVENT ADHERING HANDCUT FILMS

A booklet describing the new Ulano UPCO handcut films has been published by Ulano Products Co., Inc. Du Pont's Mylar is used as the backing sheet for the films, which are adhered with a special solvent. Samples of the films—blue, amber, and green—are included in the booklet. Circle No. 306 on Reader Service Card.

Pressroom

VALLEY EXPANSION CHUCKS

Information on expansion chucks has been issued by Valley Manufacturing Co. The chucks are available for either fibre or steel cores up to 19 in. diam. or for shafts of 1 in. to 3½ in. diam. in graduations of 1/16 in. Circle No. 333 on Reader Service Card.

FEED ROLL OFFSET PRESSES

A booklet giving details on two small Harris offset presses has been issued by Harris-Seybold Co., Div. of Harris-Intertype Corp. The presses are equipped with feed roll registering systems and measure 20 in. by 26 in. and 23 in. by 29 in. Circle No. 319 on Reader Card.

FORCE ROTARY NUMBERING SYSTEM

A handbook describing the Force 1000 SFM rotary numbering head component system has been made available by Wm. A. Force & Co. Circle No. 327 on Reader Service Card.

ROP REGISTER CONTROLS

A brochure describing Crosfield ROP register controls has been published by Crosfield Electronics, Inc. It is claimed that one system of controls may be used for any combination of web leads—scanning head, auxiliary scanning position, correction motors or gating switch on press drive. Circle No. 335 on Reader Service Card.

WETTER MINIATURE NUMBERING MACHINE

A data sheet giving details on the new miniature numbering machine has been prepared by Wetter Numbering Machine Co. The machine is designed for numbering checks and documents. Circle No. 336 on Reader Service Card.

HANTSCHO WEB OFFSET PRESSES

A brochure dealing with its line of web offset presses has been made available by

(*Continued on Page* 108)

UNMATCHED IN PERFORMANCE

THE FIRST FULLY AUTOMATIC PLATE CASTING AND FINISHING MACHINE

THE WOOD SUPERMATIC

Push-button operation of an electrical control panel activates a completely automatic plate casting cycle.

The WOOD Supermatic provides the first *fully automatic* control of every plate casting and finishing operation from pouring of metal to milling of finished plates. By simply pre-setting a counter, any desired number of plates may be cast from each mat.

When a plate is ready to leave the casting box it is moved through the machine by pusher mechanisms and power-driven rollers. Every operation of shaving, trimming, tail severing and ejecting, cooling and milling is under full automatic control and finished plates are always uniform in curvature and thickness.

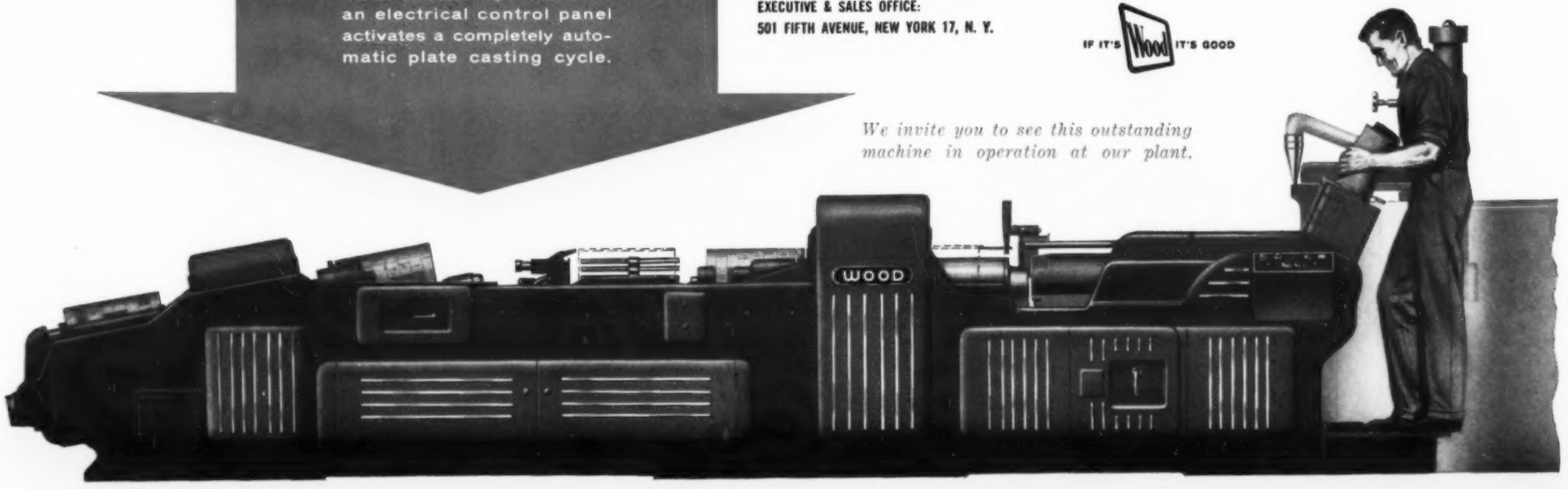
WOOD NEWSPAPER MACHINERY CORPORATION

PLAINFIELD, NEW JERSEY

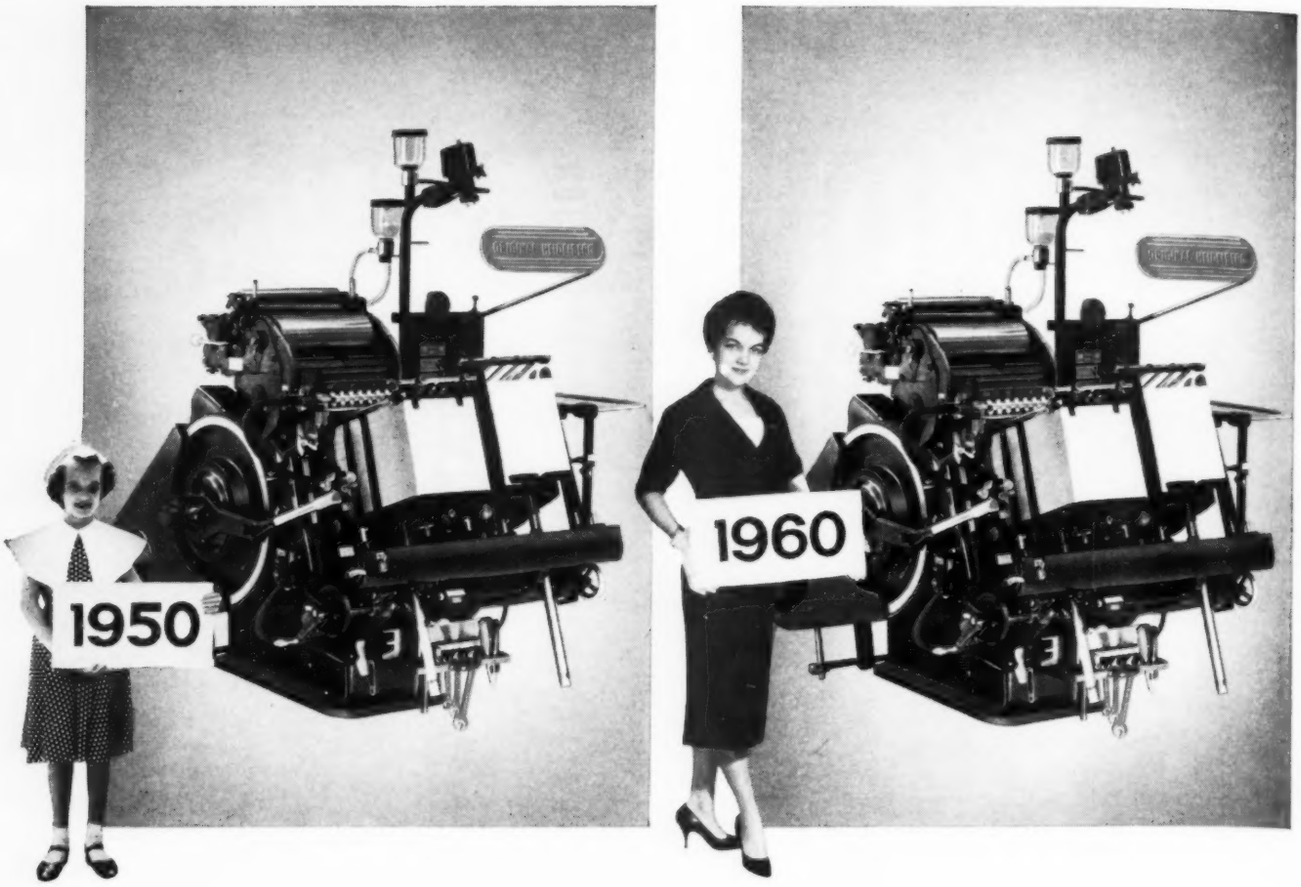
EXECUTIVE & SALES OFFICE:
501 FIFTH AVENUE, NEW YORK 17, N. Y.

IF IT'S Wood IT'S GOOD

We invite you to see this outstanding machine in operation at our plant.



For More Information Circle 237 on Reader Service Card



They look alike, but...

a number of significant improvements make our 1960 model an even more profitable press to own!

As the young and younger lady proves—a lot happens in ten years!

When we introduced the Original Heidelberg Platen Press at the 1950 Graphic Arts Exposition, it revolutionized America's job press standards overnight.

We sold hundreds on the spot and thousands more in subsequent years for the very simple reason that overnight this press had made all other platen presses obsolete.

It was faster—far faster. More ruggedly built. Easier to set up, too, and the built-in wash-up alone saved countless hours. And there were many, many other exclusive features.

But productive as it was, it's no match for the '60 model. For over these years, our engineers have studied every improvement in design and materials that research developed. And they study them with one question in mind: Can it make the Heidelberg better? If so, in it goes.

But see the new '60 model for yourself – it's a more profitable performer in any press room. It is, in short, the ultimate in modern letterpress. Available in 10" x 15" and 13" x 18" sizes.

"Letterpress profits really begin when you 'put it on a Heidelberg'"

ORIGINAL HEIDELBERG®

HEIDELBERG SALES AND SERVICE NATIONWIDE

Glendale, L. I., N. Y. • **Los Angeles, Calif.** • **Houston, Texas** • Chicago • Cleveland • San Francisco • Portland • Seattle • Denver • Salt Lake City • Albuquerque • Phoenix • El Paso • Kansas City • Atlanta • Minneapolis • Washington • Richmond

New York City Display Room — 180 Varick Street

For More Information Circle 86 on Reader Service Card

PRINTING PRODUCTION

Printing in Atlanta—1960 Style

What are the current needs of the printing industry and where do we go from here? Atlanta printers feel they have the answers (see page 46) and are already geared for the situation confronting the printing industry in the 1960s.

Atlanta's printing industry is composed of a vigorous group of men who have built impressive new plants, equipped them with the latest machines and processes, and are operating them ambitiously under modern management techniques. The pages ahead tell the story of *Printing in Atlanta.*

The city, this month, is also host to the International Craftsmen's convention. Printers from across the land will have the opportunity to see what is happening in this Southeastern printing center and perhaps benefit by the experience.

Information, please!

Rochester Institute of Technology has proposed the establishment of a centralized information service for the Graphic Arts. To function at its fullest usefulness it must have the common touch. Not only would it be expected to answer inquiries from professional people, but it should also be prepared to answer questions regarding printing processes received from the high school boy and the printing plant people.

We feel there is a need for such an agency in the printing industry and urge all to support this RIT proposal. There are, however, many broad questions which must be answered: What should such an information service offer? How should it be organized? Where should it be located? How should it be financed?

You will have an opportunity to discuss these questions at a conference to be held in Rochester, N. Y. on Oct. 13-14. If you cannot attend, write your views to PRINTING PRODUCTION and we will present them. Encouragement, willingness and funds will be needed for making a comprehensive information service available to all.

STOUT

By RICHARD A. STOUT
Executive Director
Printing Industry of Atlanta, Inc.

ATLANTA OFFERS

A Cross Section of U. S. Printing

● ***High rating among city's industries*** ● ***Progressive Graphic Arts organizations***
● ***Strategically located to serve business needs*** ● ***Maker of national printing leaders***

FEW cities in the United States can qualify as typical of a single industry or even representative of special industrial areas when you consider size, ranking, and scope of production as measurements.

In 1951, when the 13 man French Graphic Arts team, sponsored by the Economic Cooperation Administration, came to the U. S., it made Atlanta its first stop. The official guide had told them that Atlanta is the city which offers the best cross section of the U. S. printing industry.

This appraisal of the Graphic Arts of Georgia's state capital seems to describe accurately the flourishing printing businesses of this Southeastern city. Time and industrious people have moved Atlanta's printing industry to such a representative level.

Growth in the Suburbs

Within the past two decades, the city's commercial printing industry has become modern and functional with many new plants in the suburbs. This has given them a new look, far different from the dated appearance in their former locations in downtown buildings.

The first print shop was set up in 1845, two years before the city was incorporated and its name changed from Martharsville to Atlanta. The plant was operated by the Rev. Joseph Baker for publication of a newspaper called the *Luminary* and such job printing as the needs of the town required.

In little more than a century, printing in the Atlanta area has evolved into an industry that ranks ninth in dollar volume. This has been the past. The present is documented in this issue. The future of Atlanta's printing industry is embodied in its sudden new physical appearance and optimistic spirit.

For the second in its series of covers on illustrious American thoroughfares, *The Saturday Evening Post* chose Atlanta's Peachtree Street. Craftsmen at the "Atlanta in August" convention will recognize this scene, painted by John Falter, as the intersection of Peachtree and Harris Streets. (Reprinted by special permission of *The Saturday Evening Post*, © The Curtis Publishing Co..

Perhaps one characteristic of Atlanta's Graphic Arts which can account for its progress is the manner in which the city's various printing organizations have kept active and in touch with developments. The Atlanta Club of Printing House Craftsmen, the Printing Industry of Atlanta, Inc., and the Litho Club of Atlanta have demonstrated a remarkable unity of purpose and sense of direction.

A good example of industry cooperation was the purchase of its own Graphic Arts center by the trade association in 1947. Printing Industry of Atlanta, Inc., was the first local Graphic Arts association to be housed in its own building. This purchase was made possible through the contributions of industry minded individuals, management and craftsmen.

National Printing Leaders

Out of these organizations have come many national leaders in the Graphic Arts. Three presidents of national organizations at the present time from the Atlanta printing industry are: Thomas L. Cooper, president of the International Assn. of Printing House Craftsmen; Carroll

C. Barfield, president of the Rotary Business Forms Section of Printing Industry of America, Inc., and Mendel Segal, president of the Union Employers Section of Printing Industry of America, Inc.

Statistically, printing ranks among the first 10 major manufacturing industries of Atlanta. It is third in number of establishments among all industries and is sixth in the total number of employees. The total dollar volume of the product is approximately $25 million. Annual payroll of the printing industry in Atlanta is estimated at $15 million. Salaried and wage employees number approximately 4250, and the number of plants is 130.

Press sizes in Atlanta plants range from 14 in. by 20 in. single colors to large multicolor webfed offset presses. New processes and equipment have been making their appearance at an increased pace in the last few years, and Atlanta's printing management is not unmindful of the technological changes taking place.

Kinds of Printed Products

The local industry is versatile. Experimentation with specialties has given the local industry flexibility and wider markets. In addition to conventional printed and lithographed products, Atlanta plants also turn out large quantities of telephone books, law books, calendars, cigar bands, box wraps, continuous business forms, highway maps, check books, can labels, and pocket size magazines.

There is no set pattern among its varied facilities. Plants range from medium large to very small, using size and volume as a yardstick. Letterpress and lithography as processes are about equal in the over-all production picture. Offset, however, has made more rapid advances in the past decade.

In addition to printing plants, the Atlanta Graphic Arts industry includes four large typesetting trade houses, four typographic firms, six trade binderies, six photoengravers, five litho platemaking firms and numerous supply houses.

Atlanta also has one of the most advanced transportation systems in the country. Less than 10 years ago, the city initiated a plan of civic improvement which included a vast, expressway system and intensive development of the suburbs.

COSTS and PRICES in Printing

(A statement by R. A. Stout)

Commercial printing management must concern itself more with the financial management of its business. There is a need, also, for working as a unified team with estimators and salesmen to raise the profit level of the industry. Management must set the course and direction, must communicate its policy and purpose to the men whose pricing and selling will brighten the profit picture. My work with estimators and salesmen's clubs in the printing industry has convinced me there is a lack of the necessary close supervision and coordination by management.

Top management must also take stock and ascertain if it really understands what is meant by an adequate cost system. I have heard veteran printing plant owners come out of elementary seminars and clinics on costs, estimating and profits and remark that they understood some simple procedure for the first time. It is no exaggeration to say that they should have been able to conduct the seminar if they had the cost system in their plant which they claimed they had. While the Graphic Arts trade associations have hammered away at the importance of cost systems and centers, average plant management does not understand the fundamentals. It is useless to have a system installed if the leader of the firm does not comprehend its operation and function.

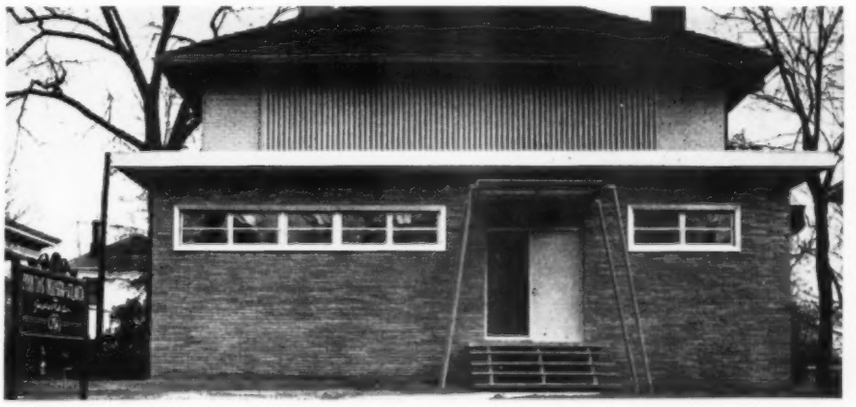
Finally, the commercial printing industry is guilty of undervaluing its product. The printed product solves a lot of problems for a lot of people, but the industry has not sold the business world that its product is essential to their prosperity. Perhaps, a complete re-evaluation of the product would result in a wider profit margin for our industry.

With two large bond issues and over-all civic support, both of the projects have been carried forth with success. Miles of new highways afford fast, safe and direct motor transportation; acres of cleared and developed property have been provided for industrial and residential building.

During this period of building and development, more than 3300 firms chose Atlanta as the site for their branch offices and factories. The fact that many of them purchased the property which they built upon further emphasizes their faith in the growth of Atlanta.

On the threshold of the '60s, the Atlanta commercial printing industry looks to the future. Fortunately, it has the leadership and the initiative to keep pace with industrial expansion and development in the nation as a whole.

While Atlanta does not have the largest plants, the greatest printing volume, or the technical training facilities, it is apparent that it has the will to progress and meet the immense market which surrounds it.



Permanent headquarters of Printing Industry of Atlanta, Inc., was established in 1947. Building was purchased through efforts of local printers.

● *Well equipped printing plants which have been steadily expanded put Atlanta printers in good position for the 1960s.*

PROGRESSIVE FIRMS MARK

Commercial Pri

THE progressiveness of Atlanta's commercial printing industry is not a hidden virtue. It is best shown in the plants which have been well equipped to handle the wide variety of printing needs of businesses in the Southeast.

Also, a characteristic of the men responsible for Atlanta printing is that they have not been content to stand still. They have expanded their physical plants and put modern machinery into each for achieving increased output.

▸ FOOTE & DAVIES, INC.

One of Atlanta's most important printing plants is Foote & Davies, Inc. In 1887, the company was a small trade bindery. Over the years, however, it has progressed to become one of the largest diversified printing plants of the South.

The period of Foote & Davies' greatest advance started in 1946 with the acquisition of the company by Albert Love, who is now president. In 1959 the firm moved into a new 83,000 sq. ft. plant which is fully air conditioned and humidified with seven air conditioning units which provide a capacity of 350 T.

The building is 340 ft. by 200 ft., and is located on a 5 A. tract. A 2000 sq. ft. utility structure houses the machine shop, air compressor and metal smelting equipment. All flammable solvents are stored underground.

Paper waste from cutting and trimming operations is carried to the baler room by an overhead blower duct system. Special battery powered emergency lighting equipment is provided for both plant and office areas in the building.

Offices are centered along the front of the building and occupy an area 200 ft. long and 65 ft. wide. Administrative offices are located on the left wing of the area while the right wing contains art, preparation and production departments. Easy and convenient access to composing and camera rooms is provided.

All production follows a straight line through the length of the plant, with materials entering alongside and at the end of the building.

Each department has a smooth finish floor constructed of concrete. The equipment receives its electrical power from an overhead bus duct system. Lighting is fluorescent, with a 44 foot-candle illumination level maintained throughout the plant. The ceiling is 15 ft. in height with a 4 in. insulated roof supported by 1 sq. ft. concrete columns. The column spacing is 25 ft. by 33.3 ft. and was worked out in conjunction with a printing engineer as the spacing most advantageous to equipment placement.

Foote & Davies' composing room is large and complete. In addition to typesetting machines and Ludlow composition, a large Teletypesetter installation is maintained for producing books, school annuals, etc.

Other products of the company include publications, reports, and a wide variety of commercial printing.

Camera and offset platemaking equipment is available for handling all types of work, both black and white and color. Automatic negative development is used. Bindery includes inserters and bookbinding equipment as well as other machines usually found in this area.

With the move to its new building, Foote & Davies installed $500,000 in new equipment and fixtures. For example, in order to supplement its large offset pressroom of single and multicolor offset presses, the company installed a four unit web offset press.

The management team at Foote & Davies includes: Earl Sanders, executive vice president; William A. Wood, vice president-sales, and F. Majors, vice president-production.

Pictured is well equipped bindery at Foote & Davies, Inc., large Atlanta printing company. Spacing of columns is 25 ft. by 33.3 ft., which was worked out in conjunction with an engineer as being most advantageous to equipment placement.

▸ STEIN PRINTING CO.

The growth of the Stein Printing Co. is evident in its modern split level plant which is the result of years of planning. It was designed to group related departments con-

By JOHN T. WRIGLEY *in collaboration with members of Atlanta's printing industry*

Representative of Atlanta's printers are these executives of Williams Printing Co. Left to right are: Al Bartlett, vice president-production; Mark Pope III, president and secretary-treasurer, and Edward Harris, vice president in charge of sales.

ri nting in Atlanta

veniently together thus saving time and effort in the flow of materials.

The production area is 225 ft. wide by 325 ft. long. Of the total of 85,000 sq. ft. of floor space, Stein is currently using 60,000. The other 25,000 sq. ft., which is set aside for future expansion, has been leased on a short term basis.

The executive offices—two floors of 6000 sq. ft. each—comprise the front of the building. The production area of 48,000 sq. ft. is contained on one floor, midway between the two floors of offices and is connected with the upper and lower levels with a half flight of stairs. This grouping of interrelated departments is said to result in faster communication and increased efficiency.

Levelator ramps which raise or lower, facilitate loading and unloading of material. Incoming shipments are received at one end of the plant and outgoing shipments are handled from the other. This eliminates unnecessary handling and congestion at key points. In addition, the parking situation is relieved with its 150 car parking lot.

Stein's facilities include a complete composing room, an offset press and letterpress department, an art department, offset preparation room, bindery and shipping department. The Typography Shop, an independently operated subsidiary, produces typography for agencies and advertising designers and is included in the building.

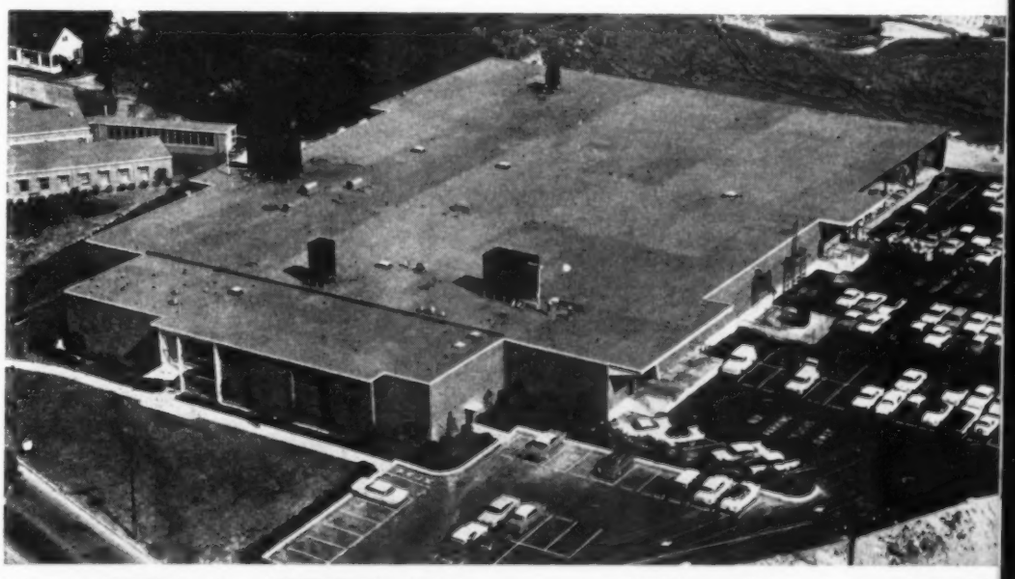
Color lithography is Stein's major area of printing production. A staff of six artists and an art director handle anything from paste-up for offset production to finished art. Stein is one of the few Southern printing firms which offer comprehensive art service.

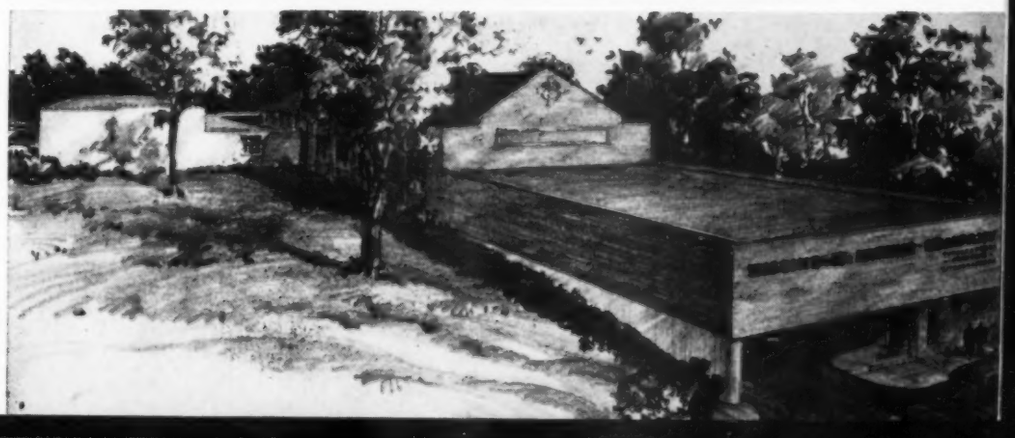
The offset preparation department uses three cameras and several darkrooms in making color separations. This eliminates interference with jobs in progress. Humidity and darkroom sink temperature, which often affect negative quality, are carefully controlled. A special nitrogen burst gas agitation system is used in the development of color separation negatives.

This consists of a developing tank having several sections. Nitrogen gas is piped through each section of the tank in copper tubing having very small holes. A timer automatically injects bursts of gas every 30 sec. Washing tanks are similarly equipped.

Film or plates as large as 20 in. by 24 in. are suspended in the solutions on specially made hangers. The agitation developing method is

At top is aerial view of Stein Printing Co., another large Atlanta commercial printing plant. Bottom is sketch of Higgins-McArthur Co., combination plant. Additions show how plant has expanded through progressive leadership.





At left is offset pressroom of Higgins-McArthur Co. Foote & Davies' (right) book production is accelerated with Teletypesetter installation.

in daily use in the Stein plant and produces very satisfactory results.

Dot etching, stripping and platemaking are also part of this department. The relative humidity in the offset preparation and press departments is maintained at 50%.

Stein supplies customers in the Southeast with shipper's tariffs, catalogs, brochures, promotion material, books and annual reports. A special creative department works with the sales force in initiating and developing promotional ideas and copy for clients, much the same as an agency.

The lighting system provides 80 foot candles generally, and 150 foot candles in specific areas. Also, complete air conditioning units keep the plant cool in summer months and are equipped with converters which allow them to be used for heating during cold weather periods. The plant is protected from fire with a sprinkler system.

A unique feature is that of handling inflammable chemicals. They are stored in underground tanks and force pumped into the plant as needed. A special vacuum process empties the lines automatically, returning surplus chemicals to th[illegible] tanks.

▶ HIGGINS-McARTHUR CO.

Each executive is involved in production and sales at Higgins-McArthur Co., advertising typographers and process color printers-lithographers. All executives at this company not only are salesmen but also function as production manager's in charge of their own jobs under long established company policy.

As such, each individual must be throughly familiar with all phases of printing production. He regularly performs such functions as: estimating, marking up copy, supervising art production, ordering paper and inks, scheduling presses, checking proofs, etc. Thus the salesman-executive assumes a dual responsibility role. In all matters affecting production of a job which he has sold, the executive is wholly responsible to the customer and, of course, to the company.

Although the company employs a capable plant superintendent as well as a foreman for each department, [illegible]t does not relieve the salesman of [illegible]ver-all responsibility for the successful completion of his jobs.

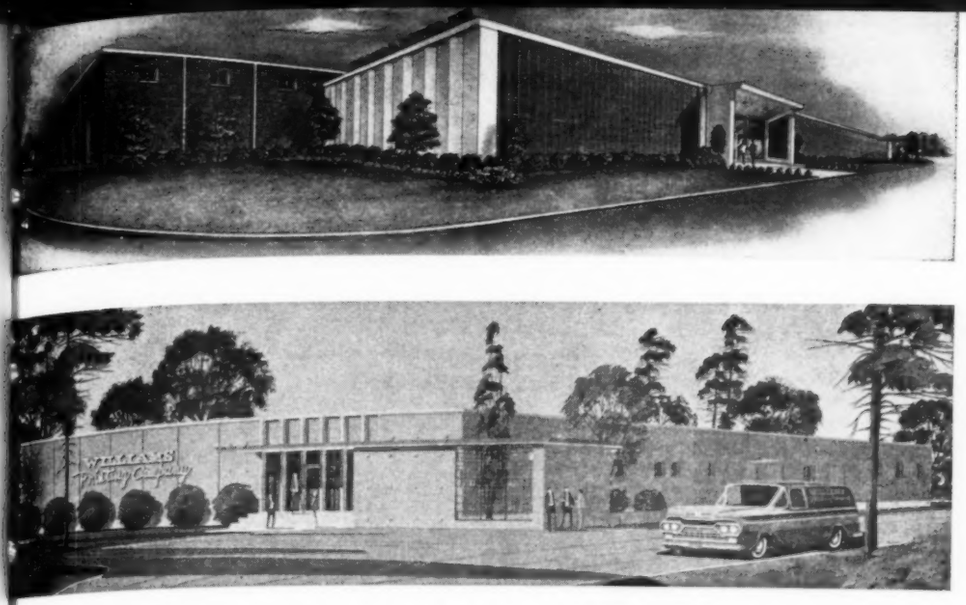
Higgins-McArthur was founded upon this concept of individualized attention to all production in 1925 when Charles H. Higgins joined forces with Richard N. McArthur, typographer. Kenton P. Higgins, son of the cofounder, joined the company in 1928 and is now its president. Other officers consist of: Edmund C. Hughes, executive vice president; John S. McKenzie, vice president, and George W. Moseley, secretary-treasurer.

The original structure housing the company was built in 1926, but now has several additions. In 1954, an annex was constructed in order to establish an offset department. This expansion program led to the construction, in 1959, of another addition to provide completely new and modern office facilities. This project added 7500 sq. ft. to the existing building and by utilizing former office space, plant area was increased more than one third.

The expanded lithographic department now includes single and two color presses. Letterpress press equipment consists of 10 presses of various size.

Missing from the Higgins-McArthur plant are typesetting machines. The company depends upon outside sources for its machine composition. As one company official explained: "We buy our Linotype and Monotype composition from trade plants in Atlanta for less than we can produce it." All display work is hand set in the plant, but heads, when they can be handled by machine, are sent to trade houses.

A small letterpress operation in 1949, Longino & Porter, Inc., today employs 50 people and has installed six offset presses since 1955.



New plants constructed by Foote & Davies, Inc. and Williams Printing Co. are pictured above.

A large stock of type faces for hand composition is maintained. When coupled with the design and art staff, the company is in a position to offer complete service, from idea to completed job.

LONGINO & PORTER, INC.

Longino & Porter, Inc., was founded in 1949 as the result of the purchase of a small volume letterpress operation. Not content with the reputation of a stationery and business card printer, George F. Longino, Jr., and Bradley T. Porter determined to build and expand the business as soon as possible.

Profits were therefore put back into the business. In 1955, the company entered the lithographic field with the purchase of a 17 in. by 22 in. offset press. The company began to show fruits of its progressive policies. During the next three years Longino & Porter ordered four more offset presses.

Camera and platemaking departments were next to be added. The bulk of color separation work, however, is still purchased from outside sources. An art department was expanded and additional bindery equipment was purchased.

Among the products of this progressive company are booklets, publications and law books, produced by the letterpress division. Products of the offset division consist of single and multicolor advertising pieces.

The plant, which is air conditioned and humidity controlled both in offices and offset pressroom areas, is protected from fire by a sprinkler system. The building is of masonry construction and contains floor area which is in excess of 14,000 sq. ft.

Six offices house the administrative and sales staff. Access to plant operations is provided from each office, which facilitates interdepartment communication, a company spokesman said. It also helps to keep management closely tuned to production and personnel problems. Another feature of the plant is the equipping of each department with intercom speakers.

Company success is indicated by the purchase of another piece of equipment, soon to be installed. A 25 in. by 38 in. two color offset press is now said to be enroute to the 50 man plant where expansion has become an everyday word.

WILLIAMS PRINTING CO.

In 1955, under the guidance of Mark Pope III, president, the Williams Printing Co. erected a $200,000 building consisting of approximately 20,000 sq. ft. Operating facilities require 16,500 sq. ft. while 3500 sq. ft. contain administrative and production offices. The 40 man plant is humidity controlled and air conditioned.

Production, estimating, purchasing and art departments have been arranged in close proximity to each other. This is said to aid the job flow from department to department. Moreover, the production office has been situated so that all equipment can be easily seen from the production desk. Sales offices are located nearby.

The platemaking and camera department of the company is equipped with two 24 in. cameras, three darkrooms, and stripping and platemaking necessities. The litho pressroom consists of four presses which allow a combination to be used on the same job. Each press has its own plate rack, ink cabinet and specially lighted inspection table.

The letterpress department is equipped to handle normal letterpress work as well as die cutting, scoring, perforating, for both litho and letterpress orders. Linotype composition and reproduction proofs are purchased from outside sources, since the composing room at Williams consists of only Ludlow and hand composition.

Other officers of the company are: James A. Bartlett, vice president-production; Edward V. Harris, vice president-sales, and William E. Templeton, comptroller.

DARBY PRINTING CO.

One of Georgia's oldest printing firms is the Darby Printing Co., founded in 1875. Although old and well established, Darby utilizes modern equipment, methods and several innovations which have increased efficiency.

For example, all made up pages are immediately put onto mobile galley racks so that they can be moved in units of 25 to 100 pages. This eliminates numerous trips from makeup bank to stone. The entire 100 pages are rolled to the lockup tables at one time.

Part of the company's production consists of short runs of proofs. An entire day's proof production may range from 1500 to 2000 and is largely composed of runs averaging 20 copies. These are produced as a service for ad agencies. All proof

(*Continued on Page* 106)

A downtown Atlanta location is still occupied by Darby Printing Co. in this four story brick structure. Letterpress and offset work is produced by 68 employees.

BARFIELD

BOWEN

BUTLER

COBB

COOPER

DARBY

COMMENT by Atlanta's Printing Leaders

Dealing with two questions of national interest.

1—What is most needed in the Graphic Arts today to improve the status of the industry?

2—What direction will the Graphic Arts industry follow nation-wide in the 1960s?

CARROLL BARFIELD, *president, Harry Barfield Co., Inc.*

1—Most needed in the Graphic Arts industry is a different thinking attitude on the part of the people in it. Management, sales and production personnel must realize that modern machinery, methods and material, cannot produce a perfect product without the proper attitude of all the individuals involved.

We need to think. Thinking is a short cut to success with less costly mistakes. We need to be through. "Just good enough" is not nearly enough in today's market. We must take pains with everything we do.

Teamwork is a magic key. There are no successful one-man corporations. We need many more things, and most all of them can be placed under the heading of attitudes.

2—From an economic standpoint, a gradual increase in gross national product is my prediction for the Graphic Arts industry in the 1960s. We will not see, however, the severe economic changes which occurred in the '50s. From a production standpoint, I believe there will be more high speed multicolor equipment which will give additional colors at very little additional cost. The greatest change will come in the kinds and preparation of plates.

J. O. BOWEN, *president, Bowen Press, Inc.*

1—The means for attaining a closer understanding and relationship which would bring about reductions in operating costs, the stabilization of financial conditions and better net profits are available to the Graphic Arts. The industry, however, is not using these excellent advantages.

There is a need to work together to bring about better labor conditions, loyalty and understanding between ourselves and our employees.

2—The 1960s will be prosperous. Change in methods, materials and processes used to produce printing will bring new equipment of entirely different design and operation. Both employers and employees must become active participants in the changes the '60s will bring. If this should not occur, the industry will stagnate. I further predict that the offset process will surge ahead of letterpress.

A statement by JOHN A. BUTLER, *vice president, John H. Harland Co.*

In planning for our needs during the current year, we find that we must forecast a bit more in advance than the average printing company. This is necessary because our needs are for specialized equipment in the production of our product. On items as small as special numbering machines, we find that manufacturers are asking for four to six months on definite delivery dates. Presses are requiring longer delivery periods.

We look for continued good business during the year, and anticipate at least 10% increase in sales.

MAJORS

MARTIN

C. A. COBB, *president, Ruralist Press, Inc.*

1—What is most needed in the Graphic Arts industry is a better understanding between labor and management, and between these two groups and the general public.

2—If the printer is to stay in business, change to greater efficiency throughout the plant is imperative. This means that printers must facilitate the application of automation and the findings in the fields of chemistry, electronics and labor-management relations. However, there is no magic formula that can be substituted for sound business management. Good management has always paid off and is the best guarantee for success in the 1960s.

TOM COOPER, *president, Southern Photo Process Engraving Co.*

1—The greatest need in the Graphic

DITTLER

GOLDWASSER

HARRIS

HELMKEN

HIGGINS

LONGINO

Arts industry is for trained management and supervisory personnel. As printing processes become more highly technical, the lack of technically trained men who can apply their knowledge to printing becomes apparent. There is a big need in printing for men who are familiar with industrial management techniques, quality control programs, work simplification procedures and other tools of management that are in every day use in other industries. As an industry we are far behind other industries in training men for specialized management jobs.

2—During the past 25 years the photoengraving industry has undergone a complete evolution of equipment and processes. Stripfilm cameras, drystripping techniques, powderless etching, flush mounting and wet proofing are developments we have seen in less than 25 years. I think the next 25 years will see an even more drastic evolution.

It is my belief that the industry will move toward a single type press—a press that will be neither strictly offset nor letterpress. The press will be rotary in principle and will print from a single wraparound plate. The plate will be quickly and easily made. Electronics will play an important part in every phase of printing production.

In the photoengraving field I believe the trend will be to platemakers who will not confine their product strictly to letterpress printing. There will be a greater number of large shops and fewer small shops due to the necessary capital investment for new procedures.

RUFUS M. DARBY, *president, Darby Printing Co.*

1—The answer to this question can best be summed up in a single word —*time*. Time to study. Time to evaluate new products and methods. Time to communicate with customers and employees to establish better relations. Time to put into practice the improvements we already know and understand. With all our technological advancements in management and production, time is still our most fleeting and pressing necessity. Most of all, we need time to think.

2—In the 1960s, the industry will tend towards and achieve goals beyond our perception and dreams. Astute young men will grasp and apply perfected electronics and automation to accomplish the impossible. Dimensional color fidelity and lightning speed are just beyond the hill. With intelligence, youth and imagination, we will reach the summit.

ALEX DITTLER, *president, Dittler Brothers, Inc.*

1—Individual constructive thinking and not "follow the leader" type thinking. Today most printers are not individualists. Because someone else is successful with a piece of equipment, many printers rush to buy duplicates when in reality the equipment is not suited for the plant. The industry becomes overequipped with certain machinery and prices are ruined for everyone. Each printer should think out his own problems and buy equipment for his type of work, rather than to copy competitors. In this way, printers would have more profits for themselves and not hurt others.

2—It is difficult to forecast for my own company and more so for the entire industry. However, the 1960s should be no different than other years. Success will come to those plants that are equipped to profitably do certain classes of work if they stick to those classes and do not venture into fields where competition does not allow a profit. If more thought were given along these lines, the profit picture would be much better.

POPE

SEGAL

DAVID GOLDWASSER, *president, Atlanta Envelope Co.*

1—To keep pace with progress in the Graphic Arts industry, we need to build the human skills necessary to manage and operate our businesses on a high level. We should seek higher professional standards and encourage young people to enter the Graphic Arts through sound apprentice and training programs.

Training is often a difficult and costly item for a small business, and there are many small companies in our industry. Therefore, we must work collectively to provide the programs that will develop people in the skills they will need in the future. Well trained employees are the key to success.

2—In the decade ahead, the Graphic Arts industry should see a continuation of the trends begun in the 1950s. In particular, there will be increased use of high speed multicolor printing presses, especially the web press. With increased volume of consumer goods, there will be a growing demand for multicolor printing of envelopes and other packaging material.

ARTHUR L. HARRIS, *vice president, Mead Corporation*

1—One area where great improvements can be made in the Graphic Arts is in printing plate development. The industry needs less ex-

pensive, faster methods of plate production with emphasis on less expensive, more durable material.

Another important area is found in the need for better board finishes, improved varnishes and more efficient methods of application. With these developments in board finishes and varnishes, greater durability and protection can be given to the printed image to prolong and improve the attractiveness of the printed job.

2—For the '60s, I believe we will see more inline printing and an increase in laminating foils, plastics and papers to board. The industry will receive greater demands for quality pictorial reproduction and as a result, bring about these developments in coated boards in all grades, with emphasis on strength and lighter weights. The trend to better coatings and lighter weights is similarly predicted for printing papers.

During the next decade, I sincerely think we will see the inexpensive plastic plate emerge as a replacement of many of our plate processes of today. Better methods of die making will also occur.

G.M. HELMKEN, *vice president-production, Miller & Miller*

1—Probably the greatest single need today in the Graphic Arts industry is for trained qualified personnel. The growth of the industry in this part of the country has been so rapid that normal training sources have not been adequate.

2—Modern trends in packaging towards greater consumer appeal are ever increasing and present a great challenge to the industry in the coming years. New techniques of reproduction, resulting in a higher level of quality while maintaining or reducing costs must be forthcoming.

KENT HIGGINS, *president, Higgins-McArthur Co.*

1—Most needed in the Graphic Arts is a reawakened awareness of the industry's 12 year profit toboggan to a new dangerous level; a recognition of the gravity of the situation; a determination to reverse this deadly trend, and an individual reappraisal of what can be done about it.

To accomplish these ends, there

(*Continued on Page* 100)

Printing Supply Industry Has Vital Role in Atlanta's Growth

MILES of new expressways, acres of newly developed property and increased industrial activity have marked the rapid growth of Atlanta during the past 10 years.

In step with the over-all growth of the Georgian capital city has been the constant expansion of the city's printing supply and service industry until, today, Atlanta is the printing hub of the Southeastern portion of the United States.

In the area of typographic design, Atlanta has two exclusive typographic designers and five combination design and typesetting firms. All classifications of design, art and type, reproduction proofs, photographic modification, etc., are available, including the most modern and progressive innovations in the field. In addition, there are three photographic typesetting services and four typesetting companies to serve printers and publishers.

Atlanta has five trade bindery shops and two specialty plants. These do not include the bindery departments of printers and private industrial plants. All types of binding and related work are handled by these firms.

Printing Plate Services

There are two trade and two private electrotype plants in the city. The two trade shops do stereotyping, rubber, plastic and mat work for all printing plate processes.

Atlanta engravers are equipped with modern photographic, etching, proofing and mounting equipment. Six commercial engraving plants are located in the area. These six firms produce all types of engravings for single and multicolor printing, and all classifications of pattern plates on zinc, magnesium and copper. One void in service is that, although many local printers use curved printing plates, no Atlanta engraver produces them.

There are approximately 25 material and supply firms furnishing special and sundry items used in typsetting, offset, engraving, gravure, photography and art production to the industry in Atlanta. Six direct manufacturing branches of as many nationally known ink manufacturers and six sales representatives who keep a complete stock of all types of ink also serve the industry there. Every major ink manufacturer is represented in Atlanta. All types of ink for all methods of printing are either produced in Atlanta or furnished from out-of-state sources.

Atlanta is the largest supplier of printing inks to the Southeast. This includes the distribution of letterpress, offset, gravure, steel and copper plate inks in all their variations. News inks are received in Atlanta and distributed in tank cars and tank trucks, direct to Atlanta's two newspapers.

Machinery Lines Available

Printing machinery requirements in Atlanta are handled by 17 sales and service representatives. All of the best known lines of printing equipment manufactured in this country and several foreign lines are represented. Atlanta is considered to be an ideal location for machinery sales and servicing by these companies because of its central Southeastern location and distribution facilities.

In the specialty machine field, the engineering and manufacturing facilities of two companies serve Atlanta's printing plants. Two of the most prominent roller manufacturers in the country have factories in Atlanta; combined they employ about 70 people. More than 15 types of rolls and rollers for all printing purposes are produced in these plants. The production of rollers by the two companies exceeds the output of most cities of comparable size.

Every advertised and popularly used line of printing paper is carried in Atlanta. All classifications and grades of printing paper are stocked, warehoused and sold in quantities from package size to carload. Most of Atlanta's paper houses own their own office and warehouse property. At least 10 of them occupy floor space of 50,000 sq. ft.—some much more. They have an average of 20 employees in their order and distribution departments. An

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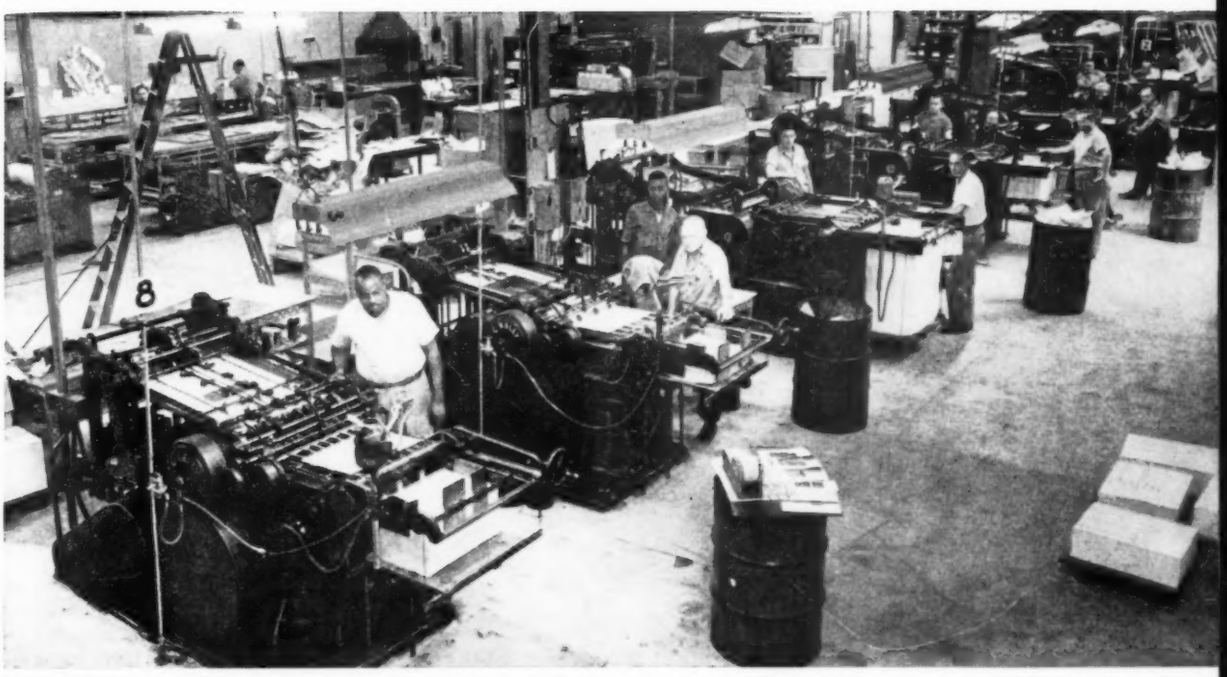


Typical of Atlanta's specialized printing industry is Miller & Miller's letterpress pressroom. Company produces labels by multicolor letterpress in flat and roll form. Folding cartons are produced by lithography and complementary equipment.

SPECIALTIES are Big Printing Business in Atlanta

By STAFF WRITERS

THE bigness of Atlanta's Graphic Arts industry is perhaps most forcefully shown among a half dozen or so companies which produce specialized printed products in enormous quantities.

Foresighted management has equipped these plants with standard and specialized machinery for mass production of many items—from cigar bands to checks and envelopes to business forms and ice cream cartons.

Seven of these companies are described here one of which includes a photoengraving plant, selected because of the progressive and unusual policies it pursues.

▸ HARRY BARFIELD CO., INC.

The Harry Barfield Co., Inc., is a rotary business forms plant, specializing in snap-apart, continuous carbon interleaved, continuous tabulating and all types of machine accounting forms. The outstanding production feature of the Barfield operation is the specialized equipment that has been designed for the manufacture of these forms.

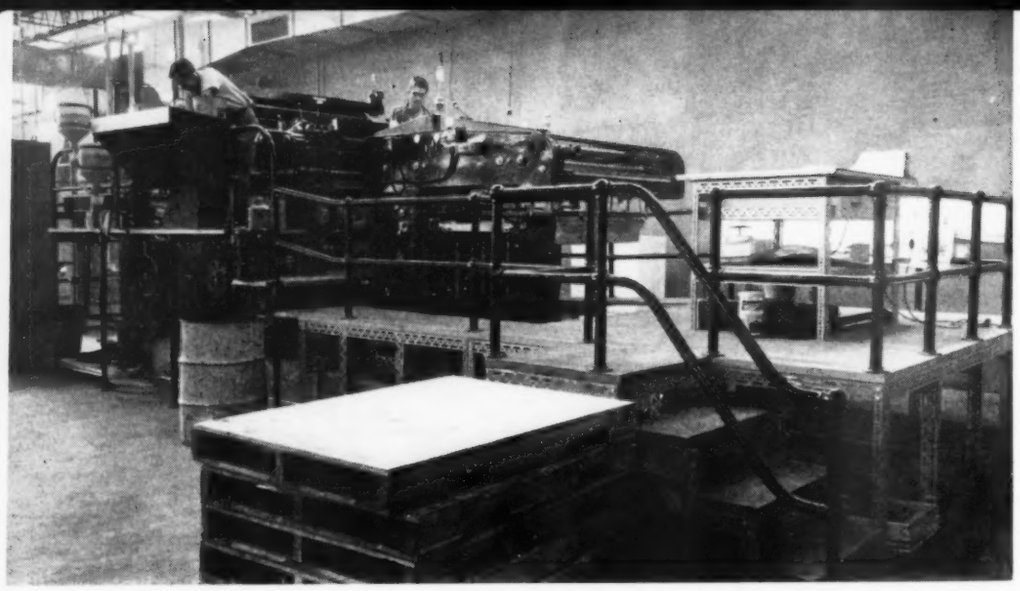
A company spokesman indicated that originally the operation was strictly flexographic and letterpress. Today, however, the business is divided 65% offset and 35% letterpress and flexographic.

The work is done on six webfed presses, each built to specifications dictated by a particular kind of business form.

Two of the presses are rotary offset, printing from roll to roll. They have three color units which will print on either or both sides of the sheet. Attachments include cam operated numbering units, file hole punching units, control hole punching units, cross perforating units and vertical and strike perforating units and trimmers. These presses operate at running speeds up to 20,000 r.p.h.

Two of the presses are flatbed reciprocating webfed machines, printing exclusively from rubber plates. They will print three colors on the face of the sheet and one color on the back and are equipped with numbering, punching, perforating, trimming and rewinding units. These presses are unique in that they will pull the web through in units based on 1/16 in. or 1/8 in. Thus, any odd depth form can be printed continuously.

One of the presses is a high speed rotary rubber plate press with a 17 in. cylinder which prints in three



A portion of the offset pressroom at Miller & Miller, Inc. Adjustable metal supports have been used to construct a platform around the press. A densitometer at the disposal of the pressmen is for quality control use.

colors, punches, perforates and performs other functions at speeds up to 30,000 r.p.h.

The last press is an imprinter which takes previously printed continuous forms and imprints information at speeds up to 10,000 i.p.h.

Four rotary collators take the rolls of printed paper and carbon, and combine the two. The collators also perforate, paste, stitch and crimp, making a completed set of business forms either in units or continuous form. All composition, layout, preparation, camera work and platemaking are handled and controlled within the plant.

President of the company is Carroll Barfield. Harvey Timms is plant superintendent, and Al Sills is superintendent of rotary machine production.

▸ ATLANTA ENVELOPE CO.

In 1893, the majority of the early orders for the Atlanta Envelope Co. were for job printing, with the bulk for railroad timetables. As Atlanta and the South grew, however, the envelope industry also expanded.

At first, envelopes were manufactured by hand. The surprising discovery that it was easier and less expensive to purchase envelopes from outside sources soon prohibited hand manufacturing methods. After the turn of the century, however, machinery was installed at Atlanta Envelope for manufacturing a heavy volume of envelopes.

The company outgrew three buildings before settling in one of the country's most modern envelope plants in 1952. Three years after moving into the 75,000 sq. ft. plant, the company added an additional 10,000 sq. ft. to house modern paper sheeting equipment and to provide storage space for roll paper stock.

Today, the company specializes in the manufacture and printing of commercial envelopes. Approximately two million envelopes a day leave the plant for customers throughout the United States.

Yesteryear's slow running plunger folding machines have long since disappeared. In their place are high speed rotary folding machines, each producing the equivalent of 60 plunger machines.

Recent printing additions to the plant include a Jet printing press capable of printing over 25,000 envelopes per hr. and a three color flexographic printer which has a folder attached. This combines both printing and folding into one unit. A large flexographic press has also been added.

Many printers, jobbers and stationers purchase envelopes directly from AECO, but the company also sells directly to large users. Many specialty items such as duplicate payroll envelopes, policy pockets with windows, multicolored printing and bank-by-mail sets are included in the company's line.

▸ MEAD PACKAGING, INC.

Mead Packaging in Atlanta consists of four divisions located in three separate plants. The corrugated and flexographic printing divisions are located in plant No. 1, home office for the company. The folding box division is located a quarter mile away in a separate plant. One mile from the main plant is Mead's engineering and machinery division.

The company was founded in 1868 under the name of Elsas May and Co. and was known as paper jobbers. Later, the company was incorporated as Atlanta Paper Co., a name it held until it became a subsidiary of the Mead Corporation in 1956.

As Atlanta Paper Co., the firm was well known as a packaging printer. In 1900, the company was operating the first corrugating machine in the South. The manufacturing of folding boxes for packaging items from candy to clothes was inaugurated in 1910. The company's greatest growth, however, was not experienced until post World War II, when the company emerged as a national leader in packaging. In its 92 years of operation, the company has outgrown four plants in the Atlanta area.

Mead Packaging now includes three carton manufacturing plants, located in Atlanta, Los Angeles, and Lawrence, Mass.

The board is manufactured at Mead on two corrugating machines capable of producing 1000 ft. of corrugated board per min. The newest corrugator, installed in 1956, spans the length of a city block.

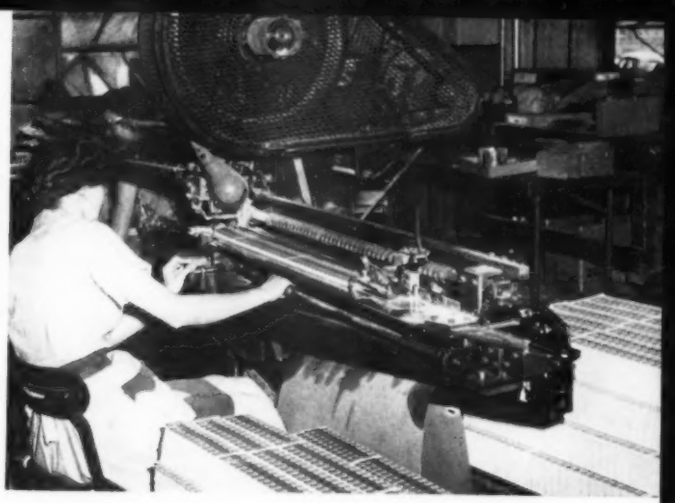
Produces Variety of Items

Mead's flexographic division, also located in the main plant, uses highly specialized printing and processing equipment in its production of carry-home cartons. It is here that the Cluster Pak carton is produced for packaging canned goods, beverages, soaps and cleaners.

Bottle Master carry-home soft drink cartons, also produced in this division, are distinguished by their water resistance, durability and printing. Rolled Kraft board is coated, printed in several colors, dried and cut into cartons in one operation on the flexographic presses installed in this division.

In addition to a six color rotogravure press, capable of printing 1000 ft. per min., Mead has recently installed a larger rotogravure press to satisfy growing customer demands.

The folding box division, located in the Atlanta plant No. 2, is capable of producing any type of printed



Harry Barfield Co., Inc., business forms plant, is shown above. Forms are printed by lithography, letterpress and flexography. At right is cigar band die cutting machine designed by Dittler Brothers, Inc. especially for its operation.

package or box. Production facilities include one four color and one five color high speed offset presses.

After printing, sheets pass through a cutting press which cuts around the image with steel rule dies. Gluing and folding machines are the next step for the printed and cut package. These machines automatically crease the flat carton and apply glue to it in proper places. Folding boxes are manufactured by Mead for packaging a variety of products.

▸ MILLER & MILLER, INC.

Miller & Miller, Inc. was founded in 1930 by three brothers, Frank S., Harmon B. and Russell S. Miller, and has grown to where it now employs almost 350 people. In 1930 the principal product was direct mail advertising. Today the company's specialty is label and folding carton printing.

The plant is located in Stone Mountain, Ga., a suburb of Atlanta. It is housed in a modern 104,000 sq. ft. structure and is situated on a 36 A. lot. A feature of the plant is its automatic scrap disposal system which has been installed in die cutting and rewind departments.

Two types of labels are produced, both by the letterpress process. Flat labels are produced on seven letterpresses which range from single color 12½ in. by 20 in. to two color 27 in. by 41 in. presses. Roll labels are produced on four New Era four color presses. These presses are equipped for inline die cutting and pneumatic stripping. Both types of labels are produced on heatseal, laminated and pressure sensitive stocks.

Folding cartons are produced by lithography. Equipment in this department includes a five color 52½ in. by 77 in. press as well as a two color 36 in. by 49 in. press. Cut-

Production at Atlanta Envelope Co., above, is approximately two million envelopes per day.

Main plant of Mead Packaging is pictured above. The folding box division is located at upper right. Mead Packaging is a subsidiary of the Mead Corporation. Rear view of John H. Harland Co.'s plant, below, shows how terrain was used to provide shipping and receiving entrances at two levels.

Southern Photo Process Engraving Co. is one of the largest engraving plants in the Southeast and employs 30 engravers on a three shift basis.

ting and creasing equipment for this department consists of a 76 in. cylinder press and a 49½ in. Bobst cutter and creaser.

Carton products include all types of folding boxes, such as waxed, textile, bakery, ice cream, etc. The plant not only contains complete camera and platemaking operations, but also maintains its own electrotyping department for label production.

▶ JOHN H. HARLAND CO.

Originally organized in 1923 as a commercial printing enterprise, John H. Harland Co. through successful application of specialization has become one of the leading plants in Atlanta. Its products include engraved stationery but the mainstay of Harland's business is check printing.

As a commercial house, the company thrived sufficiently enough to merit the construction of a new building in 1926. This structure was enlarged and expanded twice until future growth in these quarters was cut off. In 1956, Harland again constructed a new plant, and combined departments which had spilled into leased areas across the street.

Between plant constructions, however, the company had expanded its territory. This move prompted, in 1948, the establishment of a plant in Orlando, Fla. Other regional expansion of the company's operation has taken place in Nashville, Tenn., Greensboro, N. C., and last year in New Orleans.

Specialization of the firm's business began in 1945. Because of the numerous orders for check printing which the company began to receive, check production became snarled with commercial work. As a result, the decision was made to discontinue commercial printing and to concentrate on check printing as the major product of the company. In line with this decision, John A. Butler, executive vice president in charge of production, introduced the trend toward the installation of smaller and faster equipment.

Orders for checks received by the bank are sent to the Harland organization. Here the information is punched into Teletype tape for later use in one of the firm's two Teletypsetter installations, or sent directly to other linecasting equipment. The checks are then imprinted and sent to the bank.

▶ SOUTHERN PHOTO PROCESS ENGRAVING CO.

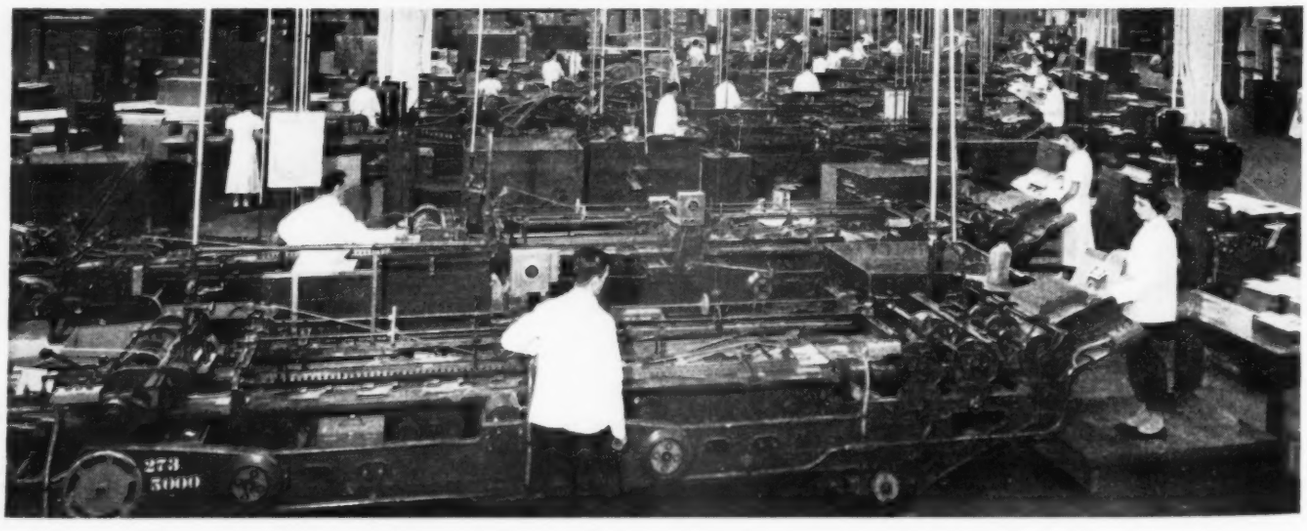
Southern Photo Process Engraving Co., one of the largest photoengraving plants in the Southeast, is also the oldest. A merger in 1954 of the Southern Engraving Co. and the Photo Process Engraving Co., both of Atlanta, provided the company with a background of 60 years of continuous operation.

Two years ago, Southern Photo Process moved to its present building which is located near the center of the city. The structure is of brick and overhead truss type construction with more than 13,000 sq. ft. of floor space. Production area is 111 ft. by 88 ft. and storage area, located at the rear of the building, is 704 sq ft.

With a production force of 30

(*Continued on Page* 102)

Gluing operation at Mead Packaging is indication of extensiveness of this operation. Production exceeds one million cartons per day.



Atlanta Extends Welcome To Craftsmen's Convention

MONTHS of enthusiastic planning and preparation by members of the Atlanta Club of Printing House Craftsmen has resulted in one of the most diversified programs for an International Craftsmen's convention ever presented. The convention commences on Sunday, Aug. 7, and continues until Wednesday night, Aug. 10.

The 41st International convention is being held at the Atlanta Biltmore Hotel in Atlanta. It is anticipated that over 1000 Craftsmen and their ladies will attend.

This growing association now consists of 116 local clubs with a grand total of over 16,000 members. The majority of clubs are located in the U. S. and Canada with participating clubs in a number of foreign countries.

The presiding officer of the convention, International Pres. Thomas L. Cooper, is also an Atlantan. He heads the Southern Photo Process Engraving Co. and winds up a successful year in the International's highest office.

The general convention chairman is Warren Taylor who in business life is general manager of Williamson Southern, Inc., a subsidiary of Williamson & Co.

President of the Atlanta Club is George Armstrong. He has been working with the convention committee in arranging for an outstanding convention.

Welcome-Keynote Addresses

Georgia's U. S. Senator Herman E. Talmadge, a nationally known figure, is scheduled to deliver the welcoming address at the opening session on Sunday night, Aug. 7. Keynote address of the convention will be delivered on Monday morning, Aug. 8, by Arthur L. Harris, vice president of the Atlanta firm of Mead Packaging, Inc.

The educational program for the Atlanta convention has been prepared to cover technology in the commercial printing and publishing industry. The program and speakers have been assembled by the Atlanta Club's committee headed by Joseph Wyant.

The first technical clinic will be held on Monday, Aug. 8 immediately after adjournment of the convention opening session. At 11 o'clock, new photomechanical production methods will be discussed. Topics will cover Photomodification Camera, Photopolymer Plates, Brightype Reproduction and Wrap-around Printing Plates.

At left is Atlanta convention general chairman Warren Taylor. George Armstrong, at right, is president of the Atlanta club.

During the balance of the three-day convention, 24 different clinics, each 1¼ hr. long, offer a choice for attendance. Four separate clinics will be held simultaneously so that Craftsmen can participate in the clinics in which they are most interested.

One of the interesting and colorful events of the convention is the caucus. Invariably, the meeting is held at 12 midnight on a Tuesday to select officers to serve the association during the ensuing year. Then at the next morning's convention session the selected candidates are formally nominated and elected.

It is anticipated that Robert M. Edgar, International vice president, will be honored with the 1961 presidential post. He is president of Neyhart Printing Co., Pittsburgh.

There will be contests to fill the posts of vice president, treasurer and three vacancies on the board of governors. Two present board members, Michael Imperial and Harry C. Link, will be eligible and have announced their candidacies for the vice presidency.

Imperial is finishing department manager of the Calendar and Advertising Specialties Div. of Skinner Kennedy Co., St. Louis. Link is owner of the Harry C. Link Printing Co., Philadelphia.

Reportedly, Harry M. Faunce of Boston, board member, will seek election as International treasurer.

At press time it was not generally known what candidates will run for the three vacancies on the board of governors.

The official family of the International Craftsmen's Assn. are, seated, left to right: Mark H. Carothers, Dallas, treasurer; Thomas L. Cooper, Atlanta, president, and Robert M. Edgar, Pittsburgh, vice president. Standing: Governors Michael Imperial, St. Louis; Harry C. Link, Philadelphia; Harry M. Faunce, Boston; Harold E. Sanger, Chicago; Roy Gurney, Toronto, and Robert M. Ritterband, Santa Monica, Calif.

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Trenton — Central Paper Company

NEW YORK
Albany — Hudson Valley Paper Company
Buffalo — Alling & Cory Company
Buffalo — Franklin-Cowan Paper Company
New York — Forest Paper Company
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New York — Schlosser Paper Corporation

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Houston — Carpenter Paper Company
Houston — Olmsted-Kirk Paper Company
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For More Information Circle 2 on Reader Service Card

How Should I Print the Job—By Letterpress or by Offset?

By WILLIAM SANDERSON, *Superintendent, Jim Birr, Inc., Toledo, O.**

SHALL the job be printed by letterpress or offset in the small and medium size combination plant? This question can be answered only by taking into consideration a number of economic factors applying specifically to your own plant.

The service that can be given the customer, the quality of work produced, and the cost of a given job are all dependent upon the conditions within a specific shop.

Few often heard generalities concerning which is the cheaper method really apply in making the most advantageous decision in your own case. We hear the comment that letterpress printing has more snap, color brilliance and is sharper than offset.

When we refer to quality of printing we must consider the ability of the individual craftsman and not judge quality according to the process used. I have seen some beautiful work by all processes and have had difficulty at times in trying to determine which process was used.

Influences in Estimating

In estimating a job perhaps its price might be influenced because the work load is heavy in one department and light in another. In this case you may decide to give a much better price in favor of the department having the lightest work load.

The cost of producing a specific job can be influenced greatly if linecomposing or Monotype equipment is operated in your plant. In this case, you would have to make up the job (unless it is to be a long run), so it almost automatically follows that you could make a better profit by doing the job letterpress.

In the small or medium size shop offset platemaking facilities are not provided. If plates are bought outside the plant, some of the potential savings in costs of offset over letterpress will be wiped out.

The addition of a vacuum frame for use in making presensitized offset plates to fit your presses will enable you to produce plates in a few minutes time for pretty substantial runs. In such instance, the negatives can be purchased from a local photoengraver.

A letterpress job can be converted to offset for reruns. Also, by using the Brightype method, forms that have been run extensively letterpress can be reproduced through sharp positives and negatives for use in making deep-etch or albumin offset plates.

Recently we had a 100,000 run of a 40 page booklet by letterpress with a 150,000 additional run. We couldn't handle the job in the time required. We had the 40 pages Brightyped and ran the 150,000 additional copies on offset equipment at our disposal. In this way our customer was taken care of in scheduled time.

In determining if a job is better produced by letterpress or offset, a careful estimate should be made for each process. This will serve also as a pretty clear guide for your production man to follow when the job is placed in his hands to put through the shop.

Every aspect of the job in point should be gone over carefully with respect to the kind of paper wanted. Consider the type to be used for direct printing, or as in a lot of cases, the type must either be electrotyped or photoengraved for a letterpress job. Then decide if reproduction proofs of the type matter are to be taken to adapt it to an offset job.

Also determine the kind of ink to be used, which in my estimation is a critical job matter. While on the subject of ink, I would like to say that with proper engineering at the beginning much of the risk of producing a good job is eliminated by working closely with your ink man. Give him all the specifications at your disposal. These consist of kind of stock to be used and furnish samples (whether the ink is first down, second down, etc.); if the ink should be fast to light, and all the other information he may need to provide the proper ink. Many of the ink companies furnish forms to check off all the information required to prepare the type and kind of ink you desire.

Consider the Differences

The remaning steps in making a comparative estimate for either offset or letterpress are important. For instance, consider the difference between a pasteup keyline for offset as against type lockup for letterpress; makeready time involved for each; cost of photoengraved plates for letterpress as against the cost of offset plates. Also consider items that would be the same for both processes such as cutting, folding, stitching and inserting.

Only after making comparative and accurate estimates can you determine which process will make the most profit for your company. An accurate estimate will make a pretty good blueprint for the job while it is in process in the plant. It will also act as a double check on the final summary sheet and for the billing department when the invoice is ready to be made.

A small or medium size company in any business (especially in the printing business) must have certain basic characteristics to be successful. In order of importance these are:

(1) Top-flight qualified management.

(2) Agressive and hard hitting sales department.

(3) Adequate financing and financial management.

(4) Adequate facilities for production.

(5) Efficient plant layout.

(7) Well organized plant and equipment maintenance program.

(8) Effective scheduling procedure.

(9) Realistic and accurate cost system.

A small or medium size plant within the printing industry must also have well organized departments and procedures for processing the work after having qualified according to the preceding list.

*Abstract of address given before Fifth District Craftsmen's Conference, Toledo, O., May 1960

For More Information Circle 190 on Reader Service Card→

How to make a good impression on a date

The calendar business calls for true-to-life colors. That's why the printer of this striking new 1961 calendar specified West Virginia Pinnacle Offset.

Pinnacle is a bright blue-white paper giving the truest color rendition possible and assuring sharp detail. Stiffness of stock for this book-type calendar means durability for the year, while soft, pleasing texture adds to the beauty of the finished piece.

And West Virginia's stabilized moisture control makes precise register easier to maintain. Opacity is excellent, of course.

Whatever your printing needs, West Virginia's coated and uncoated letterpress and offset papers assure smooth, trouble-free press runs, fine line reproduction and brilliant process work.

Ask also about our direct mill-to-you sales policy and technical service. Write West Virginia Pulp and Paper Company, 230 Park Ave., New York 17, N. Y., or get in touch with one of the offices listed.

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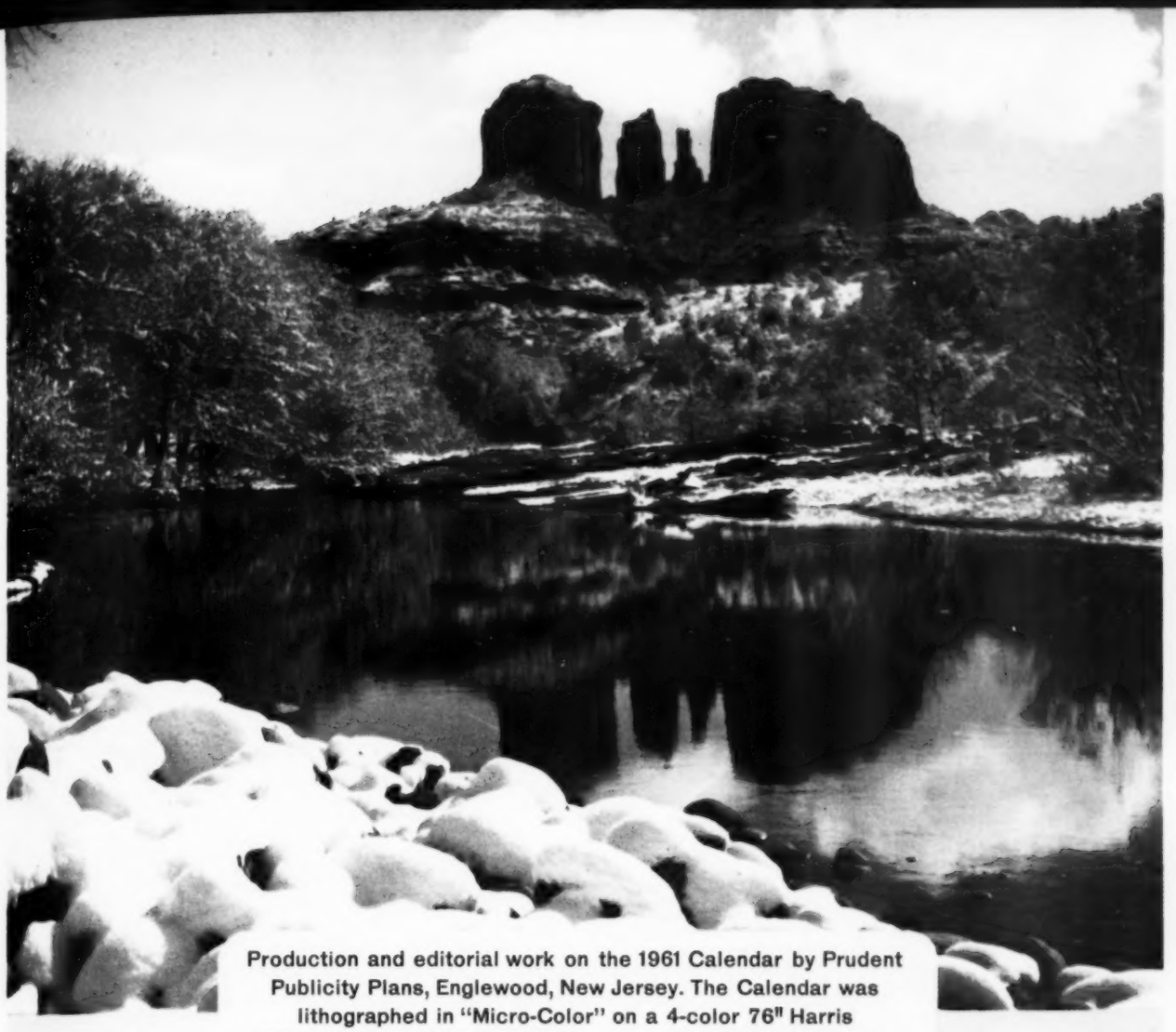

AFTER THE STORM

Production and editorial work on the 1961 Calendar by Prudent Publicity Plans, Englewood, New Jersey. The Calendar was lithographed in "Micro-Color" on a 4-color 76" Harris Offset press by the W. A. Krueger Co., Brookfield, Wisconsin, on 100 lb. Pinnacle Offset Blue-White, Regular Finish.

BOB BRADSHAW

The most effortless way of scorching a Matrix ever devised

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3. **Scorch and form the matrix**
4. **Eliminate Buckles, wrinkles and other distortions**

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AMERICAN PUBLISHERS SUPPLY, INC.

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For More Information Circle 8 on Reader Service Card

Constant and separate indications of metal-in-pot and mouthpiece temperatures are readily visible on the dials of the Partlow Cast-A-Trol. Prototype model on Linotype is checked by Theodore Gardiner.

Dual Temperature Indicator For Linecasting Metal Pots

By THEODORE GARDINER, *Chief Composing Machinist, Indianapolis* Star *and* News.

SERIOUS production delays can be caused by improper metal pot and mouthpiece temperatures on linecasting machines. The result of such delays is costly in time and money, missed edition deadlines or a lot of type set uselessly.

Like most newspapers, the *Star* and *News* requires as nearly perfect type production as possible. My job is to keep the composing room equipment in condition to produce clear type faces on solid slugs.

Close control of temperature in pots and mouthpieces is vital in producing good type faces. You just can't go below 525 deg. F. with the molten metal in the pot and still get good type.

We have used temperature control instruments of various types for a long time to open and close electrical circuits and maintain pot and mouthpiece temperatures within selected ranges. We have maintained pot crucible temperatures between 535 and 550 deg. F. and the mouthpiece temperatures between 490 and 500 deg. F. We use metal comprised of 12% antimony, 4.35% tin, balance lead.

Although we maintain relatively close temperature controls on our electrically heated pots, we cannot truthfully tell you that we *know* what the metal temperature is in each pot and each mouthpiece. We know what they are supposed to be. But if asked: "What is the temperature of the metal in the pot on this or that machine?" we would have to get out the familiar thermometer to check the metal temperature.

Guesswork at Mouthpiece

To check the mouthpiece temperature, we use the 2 pt. lead method. We pass a corner of the 2 pt. lead slowly across the mouthpiece. If it starts to melt as it reaches a third of the distance across the mouthpiece, we are pretty sure the temperature of the mouthpiece is nearly right. However, we do not know the exact temperature—just a close approximation.

In both these instances there is a delay in production which cannot be afforded in connection with the newspaper's limited production schedules. In newspaper composing rooms (or in composing rooms of any size for that matter) we must have a simpler and faster method for determining temperatures. It must also be a positive method.

For a long time I have been pleading with the industry to provide a means for indicating these temperatures automatically. Other machinists joined me, but we didn't get the compact equipment we wanted.

Asks for Control Instrument

Two years ago I discussed the problem with the A. B. Young Co. here in Indianapolis. This firm represents the Partlow Corporation. Partlow assigned a project engineer, John Keeler, to develop the temperature control instrument I had been asking for.

The instrument shows temperatures of metal in the pot and the mouthpiece separately on two direct reading dials. The dials together with activiating device are mounted on the pot.

These were the problems we felt should be met in a device designed specifically for application to linecasting machines:

(1) Visual indication of the temperatures of the crucible and mouthpiece at all times. We want to *know* that the temperatures are right, rather than assume they are properly controlled or in having a machinist tied up nursing the linecasting machine.

(2) Accurate control of pot and mouthpiece temperatures to keep them consistently within a given narrow range to produce the best type faces.

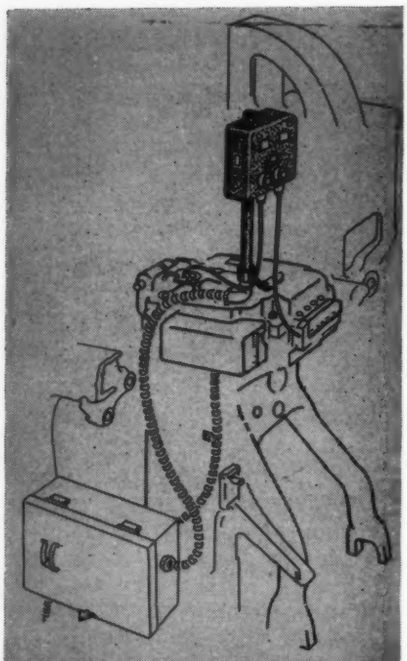
(3) The device should be engineered so it can be made and sold at a reasonable price.

(4) Compactness of design. Additional devices of various kinds are being added to linecasting machines, making them harder to get at. Compactness and universal mountings are essential.

(5) Simplicity of design and operation to insure longer life, less field service, fewer parts to wear out and avoidance of expensive down time.

Those were the requirements. They were met in a prototype we mounted and tested in our composing room. This was the forerunner of the Partlow Cast-A-Trol announced recently.

The new device is a double in-



This drawing shows installation of Partlow Cast-A-Trol on an Intertype metal pot. Capillary tubes from pot and mouthpiece actuate two indicating dials to show temperatures separately.

dicating control. There are two mercury bulb sensing elements—one for the pot crucible and one of the pencil type for the mouthpiece. Temperature changes in each critical area are transmitted through a capillary tube to the separate thermal elements.

Mercury expanding or contracting in the capillary actuates a plunger. In turn the plunger activates a microswitch controlling the electric heating element circuit for the crucible and moves the pointer on the pot temperature indicating dial. The mercury in the other bulb and capillary actuates the other switch and dial pointer in response to the mouthpiece temperature changes.

Both thermal element mechanisms and dials are contained in one housing, 7 in. by 7 in. by 3 in. A universal bracket is provided for mounting the instrument on either Intertype or Linotype metal pot.

The sensing elements or mercury bulbs are the same as those the printing industry has used on earlier non-indicating Partlow controls. Relay packs are available if required.

Using the new Partlow control, we have been able to hold the mouthpiece temperature variation consistently within 3 or 4 deg. at 495 deg. F. Pot crucible temperatures have varied 3 or 4 deg. overall at most from our preferred temperature of 540 deg. F.

We avoid back squirts that would be caused by temperatures running wild and which require time-expensive cleanups by machinists. We don't run the risk of getting a lot of chilled type faces or of overheated molds which always cause their share of troubles, sometimes in missed edition deadlines.

Partlow Corporation tells me that, although this temperature control was designed primarily for electrically heated linecasting machines, it can be easily adapted to gas-fired metal pots through the use of solenoids.

Ink Firm Gears for Impact Printing

The Impact process of matching specially tinted paper to color inks formulated especially to match the paper continues to be advanced in its development for use in the printing industry (see PRINTING PRODUCTION, March 1960, page 59). Last month Whiteford Paper Co., developers of the process, licensed Sun Chemical Corp. to produce inks for the process. They will be marketed by General Printing Ink Co., a subsidiary of Sun Chemical.

The system has reduced the reflectance produced by glossy white paper and black printing, from a ratio of 17 to 1 to 8 to 1, according to tests conducted by Whiteford. In other words, white glossy paper under normal conditions is said to reflect 17 times as much light as the black printing. Black and white combinations under the Impact system are eliminated entirely.

The white paper is replaced with a specially tinted stock which is correlated to the special inks to be printed on it. The inks are not black, but are compounded to provide a reflection value of 8 to 1 when printed on the tinted stocks.

According to John S. Thome, vice president, Sun Chemical Corp., "... the black against white contrast for reading has been acceptable to the eye under candlelight, firelight, light by oil lamps, or early electric bulbs. Now that man has brought outdoor light indoors, these high contrasts between black and white are not only excessive—they are fatiguing."

The important consideration, say advocates of the Impact process, is matching paper tones to ink tones. The ink selected must be in moderate contrast with the paper background. If reflecting capacities are too close, they say it becomes a task for the eyes to pick out the type against the competing background of colored paper.

In the printing of four color illustrations, it would only be necessary to substitute the Impact hue related ink for black. The three standard process colors remain the same.

John S. Thome (left), vice president, Sun Chemical Corp. and E. A. Whiteford, president Whiteford Paper Co., discuss reflectance ratio as applied to the Impact color system.

Assurance of Fine Presswork

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3.

For More Information Circle 12 on Reader Service Card

Houston Trains Own Mechanical Foremen

Realization that newspaper supervisors are made, not born, has embarked the Houston (Tex.) *Chronicle* on an extensive program of training mechanical foremen.

The program was detailed for the benefit of other newspapers at the ANPA-RI Mechanical Conference held in June in Miami. The presentation included an actual training session introduced by Donald V. Weber, production manager of the *Chronicle*, in which three Houston psychologists participated.

Weber explained that his newspaper adopted the program because of the need for "new blood" to assume responsible mechanical positions. Management was also searching for ways to improve profits and felt that this was an important area in its operations. In addition, there was the realization that length of service is not entirely sufficient reason for advancement to foremanship.

Heart of the program, he said, is group discussion dealing with actual —not theoretical—problems. The trainees who participate are chosen by testing methods.

Dr. C. H. Lawshe set the scene for a typical discussion session at the *Chronicle*. He listed five requisites of a foreman: (1) He must have job knowledge; (2) Know job responsibilities (union contract, company rules, etc.); (3) Know how to be a good leader; (4) Be able to carry forward job instructions, and (5) Know how to use machines, materials and manpower to best extent.

Dr. D. Winick, in discussing job instruction, said: ". . . if your men don't learn, it's because you haven't taught." He reviewed the accepted steps in instruction which are: Prepare the worker, present the operation, try out performance, and follow-up.

'Man on the Line'

Dr. K. A. Lifson described the foreman as the man on the line who gets things done. He said a person is made a foreman because he is expected to improve methods, not to keep things at status quo. Dr. Lifson advocated use of methods improvement which is to break down the job, question each detail, develop and apply a new method.

Two Houston *Chronicle* foremen then testified as to the results of the training program. One said the newspaper is run better today because of it and Weber interjected that this particular foreman, since being trained, had cut overtime in his department by 1000 hrs. per month. Another foreman confessed there were many aspects of supervision he was not acquainted with prior to the program. He thought the training had given him a better hold on his job.

One amusing part of the program was related by Weber who told of first providing all the foremen with a tour of the *Chronicle's* plant. It was then that they discovered that a 15 year employee did not know where the pressroom was—even though there was an elevator to that department only a few feet from his desk.

J. Harold Mintun Passes Away

J. Harold Mintun, assistant business manager of the Pittsburgh *Press* and a leader of American Newspaper Publishers Assn.'s mechanical activities, passed away on July 14. Death was due to arterial causes which had become intensified during the previous two weeks.

MINTUN

With the *Press* for about 11 years, first as production manager, and later as assistant business manager, his long-time activities also included organizational work in two groups seeking better ways to print newspapers. He was chairman of the Illinois Newspaper Mechanical Conference during his association with the Schaub-Lindsay Newspapers in Decatur, Ill.

Mr. Mintun later served as a member of the ANPA Mechanical Committee for some time and was its chairman in 1956-57. Under his leadership, the committee worked diligently to cooperate with the ANPA Research Institute Laboratories in Easton, Pa.

While he was chairman of the Mechanical Committee, and in cooperation with the AAAA, standards for ROP color newspaper printing were established. Also, much of the groundwork for the integration of the committee with the ANPA Research Institute was laid.

Education Council Promotes Junior Achievement Program

The education Council of the Graphic Arts Industry, Inc., has adopted a program designed to interest printers in sponsoring Junior Achievement printing companies. Heading the program is Charles H. Weber, R. R. Donnelley and Sons Co., Chicago. A manual detailing steps of organizing and sponsoring such a program is available from: Education Council of the Graphic Arts Industry, 5728 Connecticut Ave. N.W., Washington 15, D. C.

To Charter Florida Club

The newly organized Broward County (Fla.) Craftsmen's Club will receive its charter Nov. 23, 1960. Presenting the charter at Pier 66 Motor Hotel in Ft. Lauderdale, Fla., will be Pearl Oldt, executive secretary of the Craftsmen.

Triple-Truck Ad Makes Newspaper History—What is reported to be first triple truck ad ever to appear in a newspaper was inserted in a June edition of the Seattle (Wash.) *Times*. Measuring 3 ft., 8¾ in. across, the ad was printed on No. 1, newsprint on a rotary offset press at *Metropolitan Press and Western*, Seattle. The third page was glued to the other two by an automatic process. Subject of the ad is Seattle's new Bon Marche drive-in department store.

Henry Gronkiewicz (left) business manager, Milwaukee *Sentinel*, explains to Clarence F. Manning, vice president of Reynolds Metals Co., the device for adhering 6 in. wide aluminum foil strip advertisement to newspaper page during regular press run. Two rubber edge disks pick up adhesive from tray and apply it to paper side of foil by contact of disks with newspaper page on press impression cylinder.

Narrow Foil Strip Cemented To Page in Newspaper Run

AN unusual production technique was employed in adhering a 6 in. wide preprinted aluminum foil advertisement to a standard newspaper page in the June 21 issue of the Milwaukee *Sentinel*.

The paper backed preprinted foil advertisement was adhered to the outside 3 col. width of the page and tacked down with adhesive at regular press printing speeds up to 45,000 papers per hr. This is reported to be the first time a less-than-page-width metallic foil advertisement has been printed in regular editions of a newspaper.

Uses 500,000 ft. of Foil

The aluminum foil stock backed with white paper was preprinted by gravure in the St. Louis plant of Reynolds Metals Co. in gold, white, red, blue and black ink. The strip carried an advertisement for Reynolds Wrap material. The preprinted stock was furnished the *Sentinel* in rolls which required more than 500,000 ft. for the press run.

Through a strip adhesion method developed by *Sentinel* executives in cooperation with Ray C. Bryant, pressroom superintendent, it was possible to incorporate the foil strip on the outer three column space of the page. The inner section, columns 1 to 5, carried an advertisement for Reynolds Metals Co. and was printed in black and red ROP color ink.

Henry C. Gronkiewicz, business manager of the *Sentinel*, said the mechanical problem was to develop a means for adhering the strip foil to a standard newspaper page at normal press printing speeds.

"We experimented with many types of adhesives," commented Gronkiewicz, "before we found one that would permit bonding the preprinted foil advertisement to a newspaper page at high press speeds, without buckling or without show-through on the opposite side of the page. With the adhesive we developed, we are able to get the desired result even at press speeds up to 45,000 per hr."

Ray C. Bryant, Milwaukee *Sentinel* press superintendent, checks threading of 6 in. wide aluminum paper backed foil strip advertisement through press. An adhesive device developed by *Sentinel* permitted adhering the foil to the right side of one of the pages. The foil, furnished in rolls, was cemented and then cut with the page to length at regular press running speed of 45,000 papers per hr.

Adhesive Applying Device

The adhesive applying device consists of a tray to hold the adhesive. The device is mounted on a press tie rod opposite an impression cylinder. Two narrow disks, the lower parts of which are immersed in the adhesive, carry the adhesive to the back side of the foil stock. The disks are friction-driven through contact with the foil on an impression cylinder. Excessive adhesive is scraped from the disks before they contact the paper side of the foil.

Gronkiewicz explained the method permits positioning a foil strip of any width in any column position on the page.

The adhesion process could also be used to adhere preprinted advertisements on acetate, wax paper, and fabrics such as cotton, rayon, Nylon and the like, as well as better grades of paper including enameled stock furnished in rolls.

New interpretations of postal regulations in 1954 cleared the way for second class mailing of publications with foil inserts, previously taboo unless mailed fourth class.

Master Degree in Printing

A milestone in Graphic Arts education was reached this month with the conferring of what is reported to be the first Master of Science degree in Printing Management. Receiving the degree at South Dakota State College, Brookings S. D., was Donald N. Rollo, Johnson City, N. Y. Six other students are currently pursuing graduate work in some phase of printing at the college. The graduate program in printing was established at the South Dakota school in the fall of 1959.

IDEAL
dependable
press aids
Ideal products help maintain pressroom efficiency and finished-product quality:
Ideal Tantone (Synthetic) Lithographic Rollers
Ideal Masterlith (Vulcanized Oil) Lithographic Rollers
Lithocraft Lithographic Rollers
Durock Ink Storage Drum Rollers
Koraltone (Plastic) Typographic Inking Rollers
Plast-O-Damp® System of Measured Moisture
Synthox (Synthetic) Letterpress Rollers
Ideal Typocraft (Solid Synthetic) Rollers
Ideal Inkmaster (Vulcanized Oil) Distributor Rollers
DX Synthetic Newspaper Rollers
Flexocraft Rollers
Impression Rollers (all types)
Ideal Process Coated Rollers
Ace Graytone Rollers
Coating and Varnishing Rollers
Textile Rollers
Rotogravure Impression Rollers
Paper Mills Rollers
Ideal Photoengravers' and Litho Proof Rollers
Waxing Machine Rollers
Rubber Gluing Rollers
Tanning Machine Rollers
Rubber Friction Rollers (all types)
Pull and Draw Rollers
Rubber Blanket Rollers
Fabric-Covered Rollers
Other Ideal Products Guaranteed to Render Exceptional Service
Ideal Process Surfacing Machines
Ideal Automatic Sectioning Machine (for split-fountain work)
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For More Information Circle 92 on Reader Service Card

PRINTING PRODUCTION's

OVERSEAS' REPORT

By WILLIAM CRANE

Russian Phototypesetting Progress

Grapevine reports from behind the Iron Curtain refer to several new machines for phototypesetting operations. The most important of these, which has not yet been shown or described in detail, works on a punched tape principle with a speed of about 25,000 characters per hr. Letters are set on a rapidly rotating disc which passes the lens of the machine.

Another Russian photocomposition machine has been well publicized and also has been demonstrated in Leipzig and other cities. This is the Polytype phototypesetter which is specifically designed for setting Oriental languages. The Polytype closely resembles two Japanese phototypesetters which have been in fairly common use in Japan for about 35 years. These are of the Shashin Sha-ken and the Morisawa lines.

All of these machines, including the Russian Polytype, have a matrix arrangement which is set on a flat table in front of the operator. The filmsetter concept is the use of a pantograph scheme to select the image or letter from the flat table matrix and photograph it through a lens. Variations in the point size of the image are made by varying the focus of the lens or by substituting one of a series of lenses in a barrel.

Being essentially manually operated machines, the phototypesetters are fairly slow. Sizes handled range from 7 pt. to 20 pt. on a 42 em measure. The very slow speed, about 40 characters per min., may be suitable for languages in which a single image stands for a whole word or idea, but are, of course, too slow for Roman letter usage.

The remarkable feature of all these machines is the size of the matrix possibilities. On the Russian Polytype, for example, there are as many as 3600 word or letter forms in a single matrix. When this is coupled with the different size ranges possible by changing lenses, the number of potential images from a single matrix becomes astronomical.

Is there a possibility that the matrix variety possible in the Oriental systems can be adapted to American speeds? If the combination could be made—and economically—we would really have something.

⊕ ⊕ ⊕

While on the subject of Russia, attention should be called to a recent agreement between France and Russia in which the latter has agreed to ship about $1.5 million worth of printing machinery to France during 1960. In view of the deplorable quality and condition of printing equipment used in Russia itself, the size of this export order comes as quite a surprise.

⊕ ⊕ ⊕

Hazell, Watson & Viney, located near London, has won the contract to print the European edition of the American magazine *Newsweek*. A Hantscho web offset press has been specially ordered for the job. The print order is estimated at about 100,000 copies a week, which suggests that the web offset press will be used for other publications too.

⊕ ⊕ ⊕

Dai Nippon Screen Mfg. Co. in Japan has produced a light-scanning electronic engraver which makes direct engravings on plastic, copper or zinc plates. Engraving time is about 20 min. for a maximum 6 in. by 82 in. halftone of the same size.

⊕ ⊕ ⊕

The Paris edition of the New York *Herald Tribune*, an abridged version of the New York paper, may soon have competition. The New York *Times* has announced that it plans to publish a European edition in Paris in which copy will be received by Teletypesetter from New York.

⊕ ⊕ ⊕

Robert C. Corlett of Miehle-Goss-Dexter, Inc., recently visited India to explore the possibilities of setting up manufacturing facilities for Goss printing machinery.

⊕ ⊕ ⊕

Good neighbor policy note: Northern Island has had quite a stir lately regarding the import of Amecian magazines dedicated to sex and sadism. The courts have ordered the destruction of a sizeable number.

⊕ ⊕ ⊕

The International Congress of Master Printers met in Holland last

100th Collator for European Export—Didde-Glaser, Inc., has announced the shipping of the 100th Speed-Klect sheet collator to Europe. The first Speed-Klect was shipped to Europe in 1956. In the crate is a five station model which is said to gather and glue 5000 completed sets of five part, 8½ in. business forms per hr.

month for discussions regarding the same problems American printers repeatedly review at PIA, NAPL, LPNA, and Craftsmen conventions. In the case of the Congress, though, the problems are multiplied by language dificulties since the printers come from England, Germany, France, Holland, Sweden, Belgium, Austria and Finland. The current topic which draws the most attention in Europe is the conflict, if any, between printing automation and craftsmanship.

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In Europe at every meeting of printers there is a ghost present. This is the vague sense of uneasiness at the thought of the impact the Common Market and the Outer Seven will have upon the commercial printing business in each country. When tariff barriers fall, some enterprising printers will find a sizeable expanding market in the export of printed material, and some will lose out.

There are an estimated 50,000 printing and Graphic Arts firms in Western Europe. When the markets are quite small, the one-man shop can manage somehow. With expanding markets, and automation, the smaller shops may not survive for long. When divided Western Europe becomes a United States of Europe, we will see a dramatic change in the conduct of its printing industry and its effect upon the United States.

Fights Low Tariff on Printing

STRONG opposition to proposed reductions in the tariff rates on Graphic Arts products—covering a wide range of lithographed and printed materials—was expressed to tariff authorities in Washington by the Lithographers and Printers National Assn. last month.

Oscar Whitehouse, LPNA executive director, argued the industry's case on the import situation in an appearance before the U. S. Tariff Commission and the Committee for Reciprocity Information. Both tariff groups were conducting investigations under the "peril point" provision of present tariff legislation prior to negotiating new tariff schedules with other members of the General Agreement on Tariffs and trade in Geneva.

In his argument, Whitehouse stated that the growth of foreign competition in the last three years has been extremely large percentage-wise and will continue to grow under the present disparity in wage rates and low import duties.

In his analysis of the import situation, Whitehouse warned: "It should be clear that the peril point of duty rates on imported materials has been passed; that the rate of growth of imports across the whole line of products is serious, and as the percentage of the total market represented by imports increases, relief will have to be sought in the form of higher duties."

The LPNA spokesman attributed comparatively low foreign wages with giving the producing companies abroad a striking advantage over the U. S. industry. He emphasized that U. S. lithographers do not have sufficient advantages over their foreign competitors by reason of mass production or superior mechanical equipment to offset this difference in wage scales.

Comparison of Wage Rates

A comparative table of the average earnings of production workers here and abroad shows U. S. workers receiving $2.57 per hr.; Belgium, $.58; France, $.60; Holland, $.45; Italy, $.435, and West Germany, $.583. Direct wages excluding so-called fringe benefits range from approximately 15% to 25% of direct wages in the U. S.

Thus, he stated, because of the wage differential the present duty rates have been no impediment to increased shipments from abroad. Therefore, the peril point has been passed.

The import growth, as recorded in statistics by U. S. agencies, shows an increase of 113% in 1959 over 1955, with 1958 showing a 29% growth over 1957, and 1959 showing a still larger growth of 32% over 1958.

Using standard operating ratios for the lithographic and printing industry in the U. S., Whitehouse reported: 25% of the sales dollar is required to pay the wages of labor and sales salaries and administrative wages and salaries approximate 8% of the sales dollar. Comparing this ratio with the wage data shown above, Whitehouse concluded that the result is "a competitive situation wherein foreign countries can manufacture and deliver to the U. S. lithographed and printed materials between 40% and 60% below current prices."

Prices of Imported Printing

In preparing its tariff presentation, LPNA conducted a survey among its members to determine the extent of injury on the part of foreign competition in the U. S. market. It showed deliveries being made here between 40% and 60% below U. S. prices. Here are some examples:

Wine labels lithographed in Germany offered for sale at $5.03 per M in 100,000 quantities F.O.B. San Francisco duty paid, as against a quotation of $9.90 F.O.B. San Francisco, by a local producer.

An Italian lithographer quoted $800 freight and duty paid on 2500 four color process posters, 30 in. by 40 in., on which a local supplier in Dallas bid $1592.

Art prints of 8 in. by 10 in. offered at $19 and $23.50 per M, including freight and duty, as against $28.75 per M, by a leading domestic producer. Religious art prints, lithoed in Italy, 6 in. by 8 in., offered at $10 and $12 per M, including duty and freight, compared to $18.25 per M by domestic plant.

Offset plates and engravings from abroad are being offered on both coasts at prices ranging from 40% to 50% below those quoted by U. S. lithographic manufacturers. Imports of children's books have increased tenfold since 1955. Current duty rate of 7½% is nearly 5% lower than the duty applicable to paper on which they are printed.

In a separate petition filed by the Nationwide Committee on Import-Export policy on behalf of the International Allied Printing Trades Assn., it was revealed that imports of children's books, post cards, greeting cards and playing cards increased from approximately $8.6 million in 1955 to $18 million in 1959—doubling the value of the imports.

Kodak

Now there are

6 Kodak graphic arts films on Kodak Estar Base

Here are three new additions to the Estar Base series:

KODALITH PAN FILM. Now on size-holding 4-mil Estar Base. For making perfectly registered, direct-halftone color-separation negatives from color copy. The improved emulsion yields higher speed and better dot quality than any comparable product.

KODAK PAN MASKING FILM. Now on 7-mil Estar Base for accurate register and handling ease. Ideal for preparing color-correcting masks in the camera-back masking technique for reflection color copy.

KODAK AUTOPOSITIVE FILM. Where size holding is critical, use Kodak Autopositive on Estar Base to make negatives from negatives, or positives from positives. Its re-reversal characteristics facilitate complex insert work, as described in the booklet, "How to Use Kodak Autopositive Materials," Q-23.

Your favorite Kodak dealer now has all the films pictured. Use them when you want performance to live up to your expectations.

Kodak Estar Base: Kodak's own polyester support—flat-lying, flexible, optically clear, kink-resistant—with built-in anti-Newton-ring properties. Built to resist moisture penetration, Estar Base dries rapidly. The repeated wetting and drying of dot etching will not affect it.

Our new movie, "How Kodalith Film Is Made," is the one you wanted us to make. You can get it by writing us.

Graphic Reproduction Sales Division **EASTMAN KODAK COMPANY,** Rochester 4, N.Y.

For More Information Circle 71 on Reader Service Card

Magnetic Ink Quality is Defined for Check Printers

APPLICATION of quality control in magnetic ink character recognition printing formed the basis for a special seminar held recently at Rochester Institute of Technology, Rochester, N. Y. Principal discussion points centered on how a printer could meet a bank's established specifications for printing the encoded checks and measuring quality of checks in a shipment.

Warren L. Rhodes, head of RIT's Graphic Arts Research Dept., said: "If the printing process cannot meet specifications, the printer must overhaul his equipment or methods, or look for other business. If the process is not meeting specifications during manufacture, then some corrective action must be taken.

"A buyer must be able to assess the quality of the shipments he is receiving. If checks are not meeting specifications, he may report the deficiencies to the printer and help him to work out his problems, or he may seek the services of other printers. If he waits until the checks are rejected by the sorter, he may then find that corrective action is difficult, time consuming and costly."

Key to communication between banker and printer are specifications, which represent the basis for the agreement between the two parties. The most important aspect of specifications is the defining of terms until everyone concerned fully understands exactly what is expected in the job.

Principal sources of disagreement are misinterpretation, lack of a common reference, method of measurement, and absence of tolerances.

"Some words used to describe printing quality," Rhodes said, "do not have quantitative meaning." If this happens, it is difficult for buyer and seller to agree whether the product has met specifications. As an example Rhodes offered the terms "clean printing," "sharp printing," and "smooth printing."

Common reference and method of measurement are closely related. If magnetic flux is being measured then everyone making measurements must check their instruments against the same standard to make sure they agree.

Because of the method of measurement, it may not be possible to get two instruments to measure the same. For instance, one instrument may measure static total magnetic effect, while another may measure average dynamic effect. It may be impossible to get these two instruments to agree in all circumstances.

Enforcing the Agreement

Rhodes emphasized that the purchaser is the only person who can enforce the agreement stipulated in the specifications. In order that banks are assured checks will work in the automatic machines, they must inspect the checks themselves. Bankers cannot expect the printer to provide checks which meet specifications unless the banker exercises some surveillance.

Because there are so many requirements imposed on every check, it is impossible to examine each one. Therefore, the banker must select a sample to inspect, and from observations on that sample, he must make some inference about the quality of product he is receiving from the printer. Rhodes said this was the essence of statistical quality control.

He also stressed the importance of instrument calibration. It is important that users know as much as possible about calibration and care of instruments used in evaluating magnetic check printing. When it is realized that both banker and printer must depend upon information given by instrument measurements, calibration is most important.

One of the instructors at the seminar, Dr. Mason Wescott, professor of applied statistics, Rutgers State University, said, "variation is fundamental to manufacturing, and variation always has a pattern. Understanding of these principles, and knowledge of the characteristic pattern can be useful and profitable."

Control, he said, is the exercise of decisions made daily by those persons who have direct responsibilities affecting the quality/cost ratio of operations. This implies the systematic use of appropriate statistical methods. By the use of these tools, decisions can be made which are based on fact rather than fiction.

Two elementary statistics which are used in making decisions are the mean (average) and standard

WHAT'S AHEAD FOR THE READER

How extensively is the lithographic process being used in the production of daily and weekly newspapers? The answer will be found in a September issue story based upon a field survey of newspapers and equipment companies. The author also deals with the equipment being used and makes future projections based upon some of his findings.

Next month's *Printing Production* will also feature stories on litho research for the packaging field, a comparatively new offset printed newspaper, a report on a successful photocomposition operation, and programs of the October printing industry conventions.

In addition, your September issue will include the first of a new series for lithographers and photoengravers on how to achieve "pleasing color." Written by Gyan P. Madan, the series will detail the techniques of color reproduction which give good enough results to please the eye at a minimum of cost.

Another big feature will describe how production scheduling of 7½ million copies of *TV Guide* is coordinated for 15 different printing plants.

An on the scenes report of the important technical deliberations of the International Craftsmen's Convention being held this month in Atlanta will also be available to readers next month. Keep informed through the pages of *Printing Production* which are your best source for reliable Graphic Arts production information.

deviation (an expression describing the variation pattern). Data used to determine these statistics are obtained by making measurements and observations on a number of printed checks.

After a number of checks have been measured, the data may be collected into a frequency distribution diagram. Using the frequency distribution, Wescott said, it is possible to compare the mean of the distribution with the specification and determine whether the process was set too low or too high or just right. For example, if the specification for magnetic flux is 100%, and the mean of the frequency distribution on a sample of checks is 100%, then the pressman was printing the correct amount of ink. If, however, the mean came out to 50%, the pressman tended to print too little ink or the ink he was using was too low in strength.

Variation in printing operations can be determined from the frequency histogram. This variation can then be compared with the tolerances stated in the specifications. One can then tell whether the operation has too much variation, Wescott indicated.

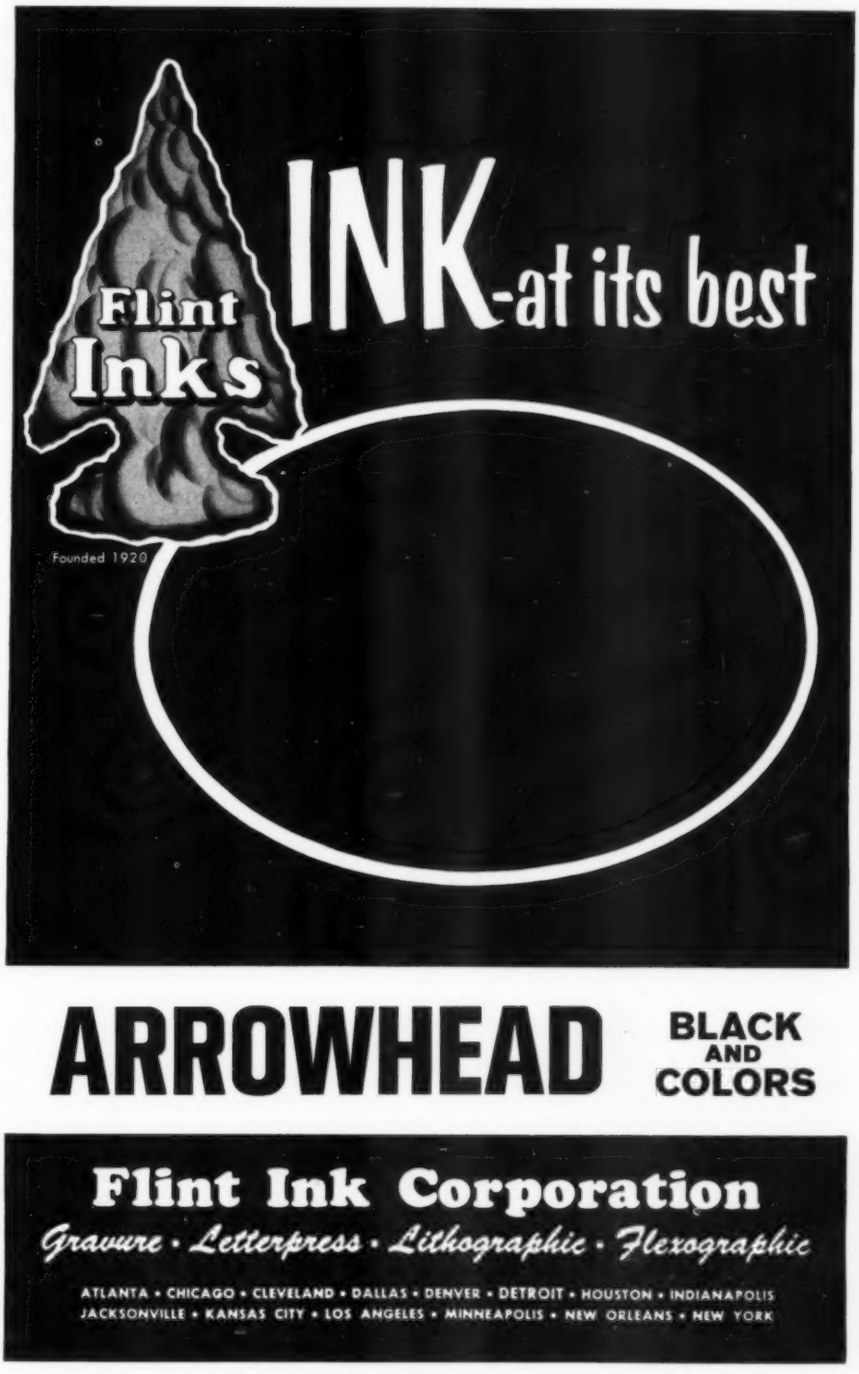
Inspection Won't Give Quality

During printing it is also important to know something about the mean and standard deviation. Observation here can be made more efficient and feasible by the use of control charts. A product's quality cannot be made high quality by inspection, he said. The quality must be put into the checks at the time they are printed. Obviously, inspectors cannot look at every check. For this reason, it is necessary to use control charts to provide a visual picture of the quality being produced. This picture must be obtained as quickly as possible so that corrective action can be taken by the operating personnel. Another advantage of control charts is that when properly used, they will prevent the operator from making unnecessary changes in the process.

As reported earlier, the buyer must become involved in quality surveillance. The buyer wants to set up inspection systems which will give him as much protection as possible from machine rejected checks. Knowledge of his risks can be determined by examination of many of the various sampling plans available, such as the MIL Standard plan and the Dodge-Romig tables.

Wescott warned, however, that protection for the buyer cannot be obtained without considering the risks which the seller takes. Consumer risk is defined as the probability that the buyer will accept shipments which have a higher percentage of defectives than he has agreed to take in the purchase order. Unfortunately, when the consumer's risk is low, and the sample size is small, then the producer's risk is high. The producer's risk is defined as the probability that shipments will be rejected which have no higher percent defective than the amount which the purchaser has agreed to accept.

Wescott indicated that two important aspects in statistical sampling must be taken into consideration. One is that the buyer must be aware of the risks involved in his incoming inspection plans. The other is that any plan adopted must be as fair as possible to both buyer and seller.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Reasons for Packing an Offset Press

Do you know why an offset press should not be ordered with the cylinders ground to a diameter that allows plates and blankets to be mounted without packing sheets? This question was answered recently by Charles W. Latham, lithographic consultant to the New York Employing Printer Assn. in its Lithographic Div. Bulletin.

Latham indicated that there are several reasons for packing an offset press. Basically it is used to compensate for differences found in the thickness of blankets and plates. It is also used on American presses to control pressures between plate and blanket. On multicolor work, the ratio between cylinder diameters must be changed to compensate for paper stretch and the maintenance of register. This, too, is accomplished by shifting packing sheets.

Packing May Be Eliminated

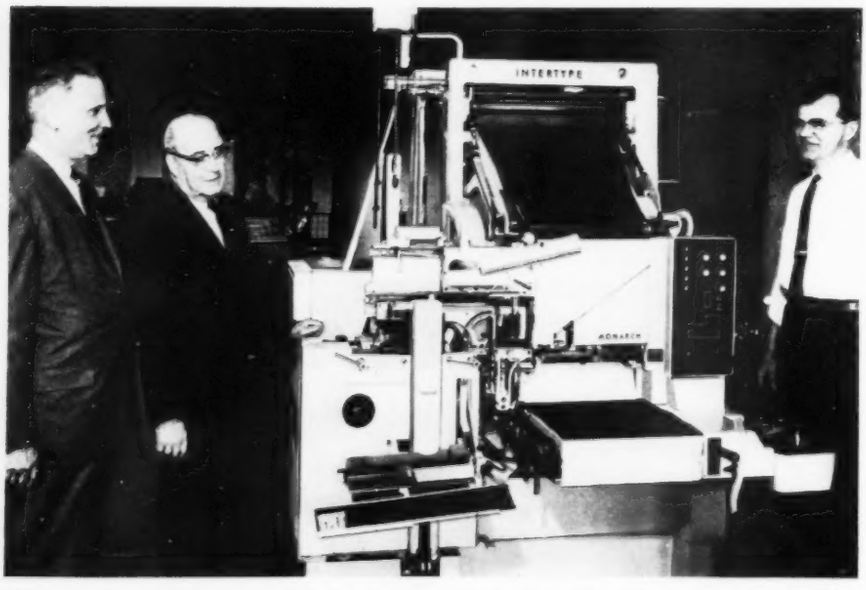
In some rare cases it is possible to eliminate packing sheets as suggested. If a press is to be used exclusively for single color work or two color work which does not have to be registered, packing sheets could be eliminated. However, this would result in a limitation to one thickness of plate which is not too important with today's thin pre-sensitized plates, but would preclude switching from these to deep etch plates.

Blankets with a minimum variation in thickness and a low tendency to swell would also have to be utilized. If a blanket should increase in thickness during the run by as much as 0.002 in. the quality of halftones would be impaired.

To make a press a little more versatile and still save time on makeready, the plate cylinder may be ground to accommodate a packing sheet of 0.005 in. under normal conditions. The pressman could then increase or decrease packing to take care of blanket thickness variations. He could remove packing when a deep-etch plate is needed, and he could shift packing to take care of a certain amount of paper stretch on multicolor work. By this method, all packing under the blanket would be eliminated on single and nonregister jobs.

In the case of foreign presses that do not run on bearers the cylinders may be moved farther apart or closer together to compensate for variations in thickness of plates and blankets. In the case of paper stretch on multicolor work, the cylinder can be moved apart and packing put under the blanket for register, Latham said.

Latham added that anyone contemplating the purchases of a single color press for a specific type of work would do well to give some thought to the elimination of packing sheets.



Monarch Enters Newspaper World—The first Intertype Monarch linecasting machine in the newspaper field was recently installed at the Grand Forks (N. D.) *Herald*. Left to right, are: Ben H. Black, Midwest district manager, Intertype; M. D. Oppegard, publisher, and Harold Ward, mechanical superintendent, of the *Herald*.

To Publish Copies of Gutenberg Bible

A limited edition of 1000 facsimiles of the Gutenberg Bible has been scheduled for publication by Pageant Books, Inc., Paterson, N. J.

The 15th Century Bible will be reproduced in two volumes that measure 12 in. by 18½ in. and weigh a combined total of 40 lbs. According to Pageant officials, 97 pages of the 1282 page facsimile will be illuminated in the original colors. The remaining all-type pages are to be printed in three color line—red, black and blue.

Method of production of the illuminated pages will be five color process, sheetfed gravure. Pages will be fed through the press seven times for application of yellow, red, blue, clear lacquer, undercoat for bronze, bronze, lacquer overcoat and black. The all type pages will be reproduced by photolithography.

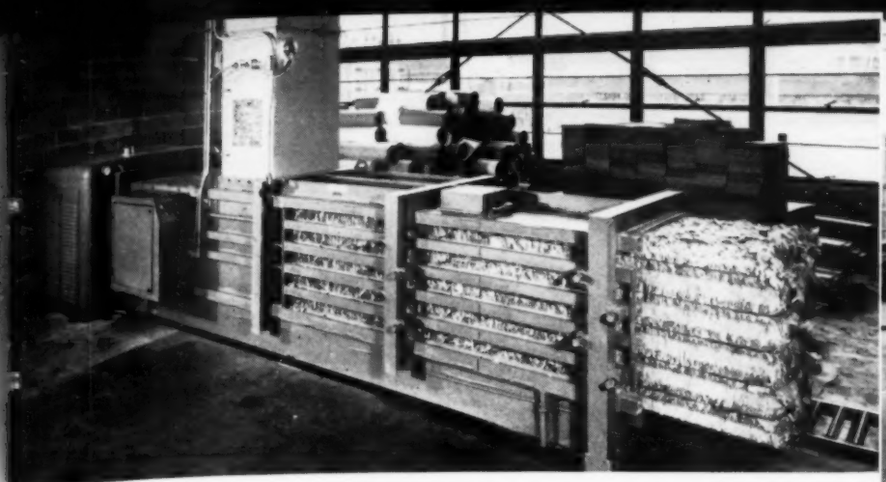
It is reported that the source of the facsimile is the 1913-14 Leipzig facsimile in collotype which was derived, in turn, from the Berlin Staatsbibliothek copy and from the Fulda Landesbibliothek copy of the Gutenberg Bible.

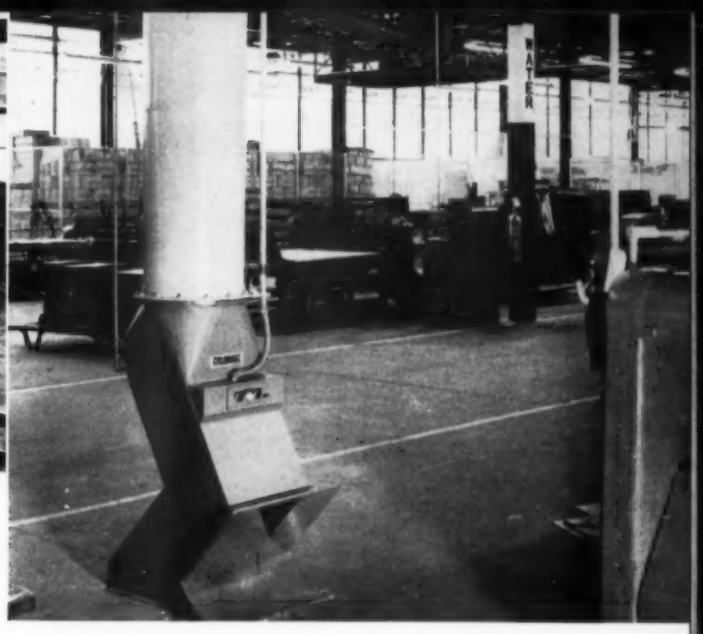
The process inks to be used in the facsimile have been tested in a fadeometer for 200 hrs. and will reportedly last the life of the Bible. Each volume is to be bound in half or full leather with 24 carat gold stamping on the cover. Printed sheets will be hand folded and hand sewn on tapes. The end papers will be of marbelized stock.

Prices are: $500 prepaid or $600 postpaid for the half leather edition, and $650 prepaid or $750 postpaid for the full leather edition.

Print or Broadcasting?

Reprints of *Will It Be Print or Broadcasting?*, an editorial published in the *Photoengravers' Bulletin*, are offered by the American Photoengravers Assn. The editorial deals with selling the value of advertising in print. The association's address is 166 W. Van Buren St., Chicago 4.





Baler, shown above, and pickup station, at right, are part of the cyclomatic scrap removal system at boxboard plant of Owens-Illinois.

Scrap Paper Removal System

AN important problem in boxboard plants is the removal of scrap paper and board from die cut products. The Chicago plant of the Owens-Illinois Paper Products Div. has solved its waste removal problem with the installation of an aumatic scrap board handling and baling system.

The Cyclomatic system, as it is called, was installed by the Balemaster Div., East Chicago Machine Tool Corp., as an integral part of the complete corrugated boxmaking operation at Owens-Illinois.

Pickup stations are provided at the corrugator, slitter-scorer, and printer slotters. Trim and waste are removed by suction and blown through ducts at the rate of 100 lbs. per min. through each pickup station. Because all ducts and overhead blowers are suspended from room trusses, the floor space needed for the system is reduced to a minimum. Main ducts are located on the roof and feed into a separator.

Scrap is conveyed along these ducts to the separator on the roof which exhausts the air used to convey the stock. The scrap drops into a pinch table conveyor and hogger located below.

Scrap flow is controlled by an electric eye system as it drops into the hogger which crushes and tears large pieces of scrap prior to blowing it into the baler.

The baler compresses the scrap board into bales 6 ft. long, 36 cu. ft. in size and weighing approximately 1000 lbs. Baled scrap is then shipped to paper mills for processing.

The entire operation is said to be automatic, requiring only one man to operate the baling and material handling system.

PIA Plans Program of Fall Convention

Increased productivity has been announced as one of the underlying themes of the 74th annual convention of Printing Industry of America, to be held at the Sheraton Park Hotel, Washington, D. C., Oct. 24-28. Other themes will be lower costs and improved sales profits.

Directly connected with the convention sessions will be an exhibition of Graphic Arts equipment which will be conducted throughout the convention by the Printing Industry Educational Exhibition, Inc.—a corporation established to manage the equipment shows held in conjunction with PIA's annual convention.

Schedule for the conference is as follows: General sessions on the mornings of Oct. 24 and 25; meetings of the Master Printers Section and Union Employers Section on the mornings of Oct. 26 and Oct. 27; meetings of the Rotary Business Forms Section and other special groups on the afternoon of Oct. 27; production session on Oct. 28, and an all-day technical forum on Oct. 29.

Fall Flexographic Workshops Scheduled for U. S. Cities

A series of one day workshops for flexographic printers and suppliers has been scheduled by the Workshop Committee, of Flexographic Technical Assn. According to Douglas E. Tuttle, chairman, seven workshops will be held in a period from Sept. 17 to Dec. 3.

Originated by FTA in Dallas and Atlanta in the fall of 1959, the workshops operate under a panel format. Topics discussed range from preparation of artwork through engravings and plates to press operations. The schedule is as follows:

Chicago, Sept. 17, for Illinois, Indiana and Michigan; Boston, Oct. 8, for Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut; Philadelphia, Oct. 15, for Delaware, Maryland, Southern New Jersey and Eastern Pennsylvania; Dallas, Oct. 29, for Texas, Louisiana, Arkansas and Oklahoma.

Charlotte, N. C., Nov. 5, for North Carolina, South Carolina and Eastern Tennessee; Atlanta, Nov. 12, for Georgia, Florida, Alabama and South Carolina; and Milwaukee, Dec. 3, for Wisconsin.

Complete Color Job in 2 Days

Two days were all that was required to take, develop, engrave and print full color pictures taken at a picnic held recently by Detroit Colortype Co. and VanderKloot Press, Inc., Detroit. Processing was accomplished through use of the Servotron automatic developing process, a Printing Development, Inc., scanning service and Dycril printing plates. The two companies did the engraving and printing.

In order to choose a good paper intelligently, it is necessary to know the various types of paper characteristics.

DISCUSSIONS on the printing quality or printability of paper occur at practically every meeting of such organizations as the Technical Assn. of the Pulp & Paper Industry and the Technical Assn. of the Graphic Arts. The argument has been advanced that before these can be controlled, they must be defined. This is rather academic, since there are many factors involved. What might be a good definition for one paper might not fit another. The printability of paper varies from one kind to another. A paper, such as an eggshell, would be entirely satisfactory for a book containing all type matter and yet be unsuitable for a similar book containing halftones.

Modify Inks for Makeready

By modifying his inks a printer can makeready the plates to permit turning out a fairly satisfactory job. This includes plate premakeready. The job, however, will not be high class on paper that is but 75% good, provided the paper is uniform. He cannot do a good job on paper that is 90% perfect and 10% bad. In that case, the variations are so great that he cannot compensate for them. Compensations are necessarily made to take care of the worst paper, hence that determines the quality of the finished product.

A pressman has much more chance to produce reasonably uniform printing on roll stock than on sheets. This is true when the latter stock is made by sheeting several rolls at one time. Inks can be adjusted from roll to roll, and really bad rolls can be rejected. However, when non-uniform rolls are sheeted together the compromise will result in inferior printing.

It is not feasible for the average printer to set up technical specifications for his paper purchases. But some understanding of printability testing and the effect of too wide variations in printability characteristics should be of value in helping choose a good paper.

tion between the large printers equipped with laboratory facilities, and the papermakers, a satisfactory range of tests can be developed for each kind of paper.

If the papermaker follows these specifications in his product intended for the average printer, a uniform paper should result.

The first requisite in evaluating paper from a printer's point of view is to consider it as a raw material, not a finished product, which must possess certain definite characteristics in harmony with the process by which it is to be printed. Paper-

An Understanding of

PAPER PROPERTIES

An evaluation for the printer

By BYRON L. WEHMHOFF
Printing Consultant, Maitland, Fla.

It is obvious that no one kind of paper is suitable for all kinds of printing. In fact, the same paper is not always the best for two branches of the same method of printing. Consideration of paper from the standpoint of printability involves a number of factors, most of which until recent years have been given little or no attention.

The art of papermaking is not exact enough to permit the manufacture of paper to comply with rigid specifications, such as are used in the steel and other industries. Fortunately printing processes are flexible enough to take care of normal variations in properly made paper. Trouble occurs when the variations exceed the normal.

Specification Essentials

An essential part of drafting paper specifications or requirements consists of determining the range within which each of the factors affecting printing quality can be controlled, and then, with coopera-

makers in the past have been concerned primarily with furnish, formation, basis weight, mullen, opacity and brightness. While all these have some effect on printability, only formation and opacity have a direct effect.

First Characteristic is Formation

Printing characteristics of paper involve first of all, formation. This is more important to the printer than to the papermaker. Unless a paper has a good formation for its particular kind the printed results will be inferior, no matter how well the paper might show up in all the other tests. Unfortunately, formation is one characteristic for which no numerical method of measurement has been developed. However, a good printer can tell by looking through the paper whether the formation is good or not.

Other factors which affect printability are density, or air permeability, printing smoothness, gloss, surface strength and printing ink receptivity.

Density, or, more correctly, air permeability, is a measure of the voids or air spaces between the

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paper fibers. It is an indirect measure of ink receptivity in uncoated papers. But it is of relatively little value in testing coated papers, due to the difference between the coating and the body stock. It is also, to some degree, a measure of formation in uncoated papers. A low test figure, indicating excessive voids in the sheet, indicates a poorly put together or "wild" sheet.

Printing Smoothness

Printing smoothness is the levelness of the paper under approximate printing pressure. There are several methods of measuring this, all of which have one or more serious defects. Some have not been used enough to permit a correlation between the tests and the printed results.

Paper Gloss

Gloss is a measure of the reflectance of light from the surface of the paper at a pre-determined angle. This test has been given undue value as a measure of the levelness of the paper. However, it is a good measure of the uniformity of the sheen, or appearance of the paper. Together with smoothness, the result is a fairly good measure of levelness and uniform appearance.

Surface Strength

Surface strength is the resistance of the paper surface to the pull of the inks, and/or blanket. The requirements vary widely according to the kind of printing as well as press speeds and inks.

Ink Receptivity

Printing ink receptivity is probably the most misunderstood of all the factors. Sizing, for instance, is still considered by some to increase ink resistance. Actually the opposite is often the case. This fallacy probably dates back to the time when all communications were written with water based inks. Sizing does make paper water resistant, but not oil resistant.

Most of the tests now in use tend to measure the ink receptivity of the paper as a whole, both surface and body. This gives misleading information, since what is really needed is surface ink receptivity to pick the ink off the plate, blanket, or engraved cylinder. The absorbency of the body stock should normally be less than that of the surface, to avoid show through or strike through. The only exceptions to this are in such papers as newsprint and mimeograph, where the ink dries solely by absorption.

This difference in ink receptivity between the surface and the body of the paper shows up particularly in machine coated and coated papers. These, except for cast coated varieties, are supercalendered to obtain the desired smoothness and gloss. This produces a sort of "case hardened" surface, as the coating consits of only filler and adhesive. It has been found that practically all machine coated papers, even those intended for offset printing, now contain a small percentage of precipitated chalk in the coating, the remainder being, of course, clay. This increases the surface ink receptivity and results in a better printing sheet. Complaints of nondrying of ink, offset, and poor trapping on machine coated papers are much more prevalent in those papers containing no chalk in the coating.

The various tests mentioned are measures of the uniformity of printing quality characteristics, and not of the actual printability of the finished paper. Any paper is printable, even though the results may not be satisfactory. Good printing by the same method can usually be done on either an ink receptive sheet or one that is relatively ink resistant, but it cannot be done when the ink receptivity varies from sheet to sheet or roll to roll. Uniformity is the most essential item in good printing papers, no matter whether they be newsprint or No. 1 coated.

Undue consideration cannot be given to any one characteristic without an adverse effect on one or more of the other factors. For instance, when a satisfactory degree of smoothness is found for a certain halftone screen, any increase in smoothness will not improve the definition of the halftone, but will result in at least lowered opacity and thickness, and possibly lowered ink receptivity.

Largest Presensitized Plate—Frederick C. Lueck, left, and Stanley F. Swies, Rayner Litho, Chicago, ready a giant 77 in. Harris Alum-O-Lith presensitized plate for the press. Reportedly, the presensitized plate is the largest ever made.

NAPL Forms Plans For Fall Convention

Panel discussions on quality control, estimating, and new equipment and materials are among the activities scheduled for the 28th annual convention and exhibit of the National Assn. of Photo-Lithographers at the Conrad Hilton, Chicago, Oct. 5-8.

Technical sessions and an equipment and supply show will also be conducted during the convention. The technical sessions will be held Saturday, Oct. 8, and will be cosponsored by the Chicago Litho Club. According to a pre-convention report, 116 exhibitors will occupy 196 booths in the display area of the Conrad Hilton. Reportedly, all available exhibit area spaces have been reserved.

Officers and directors of the NAPL will meet on the morning of Oct. 5, and the convention will be called to order at 2 p.m. that afternoon by NAPL president, Stanley R. Rinehart, manager of the Printing Div., E. I. du Pont de Nemours and Co.

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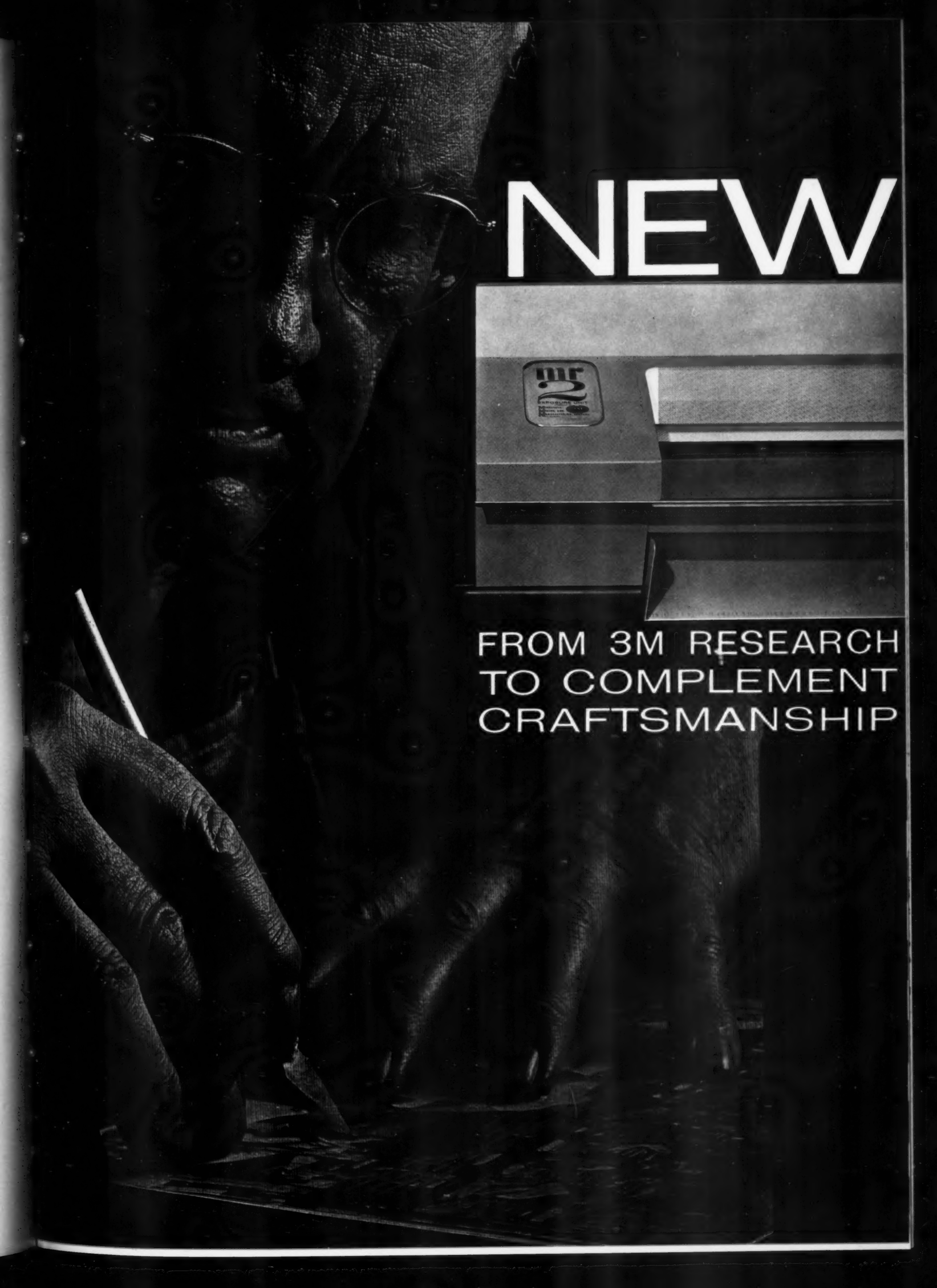
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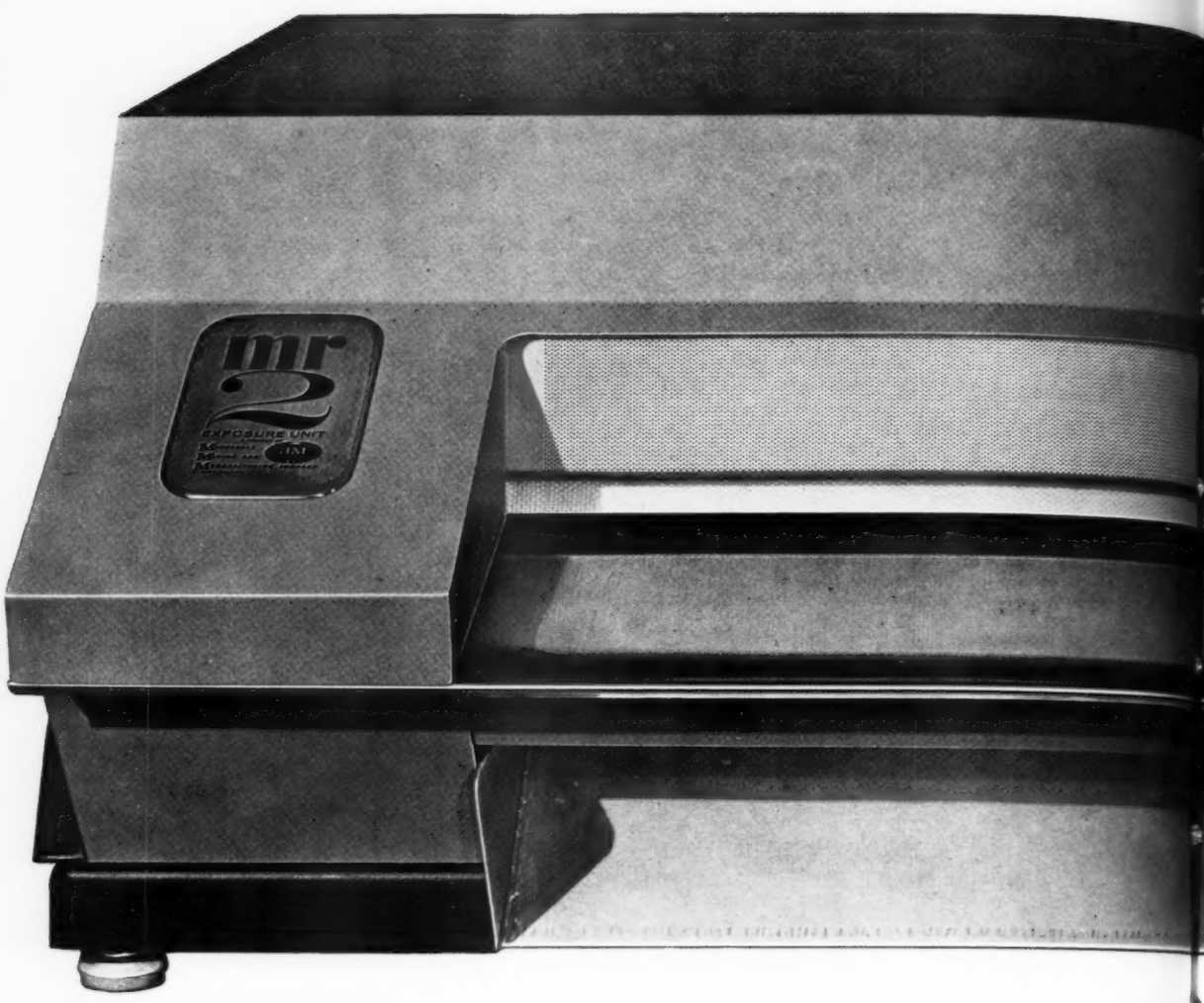

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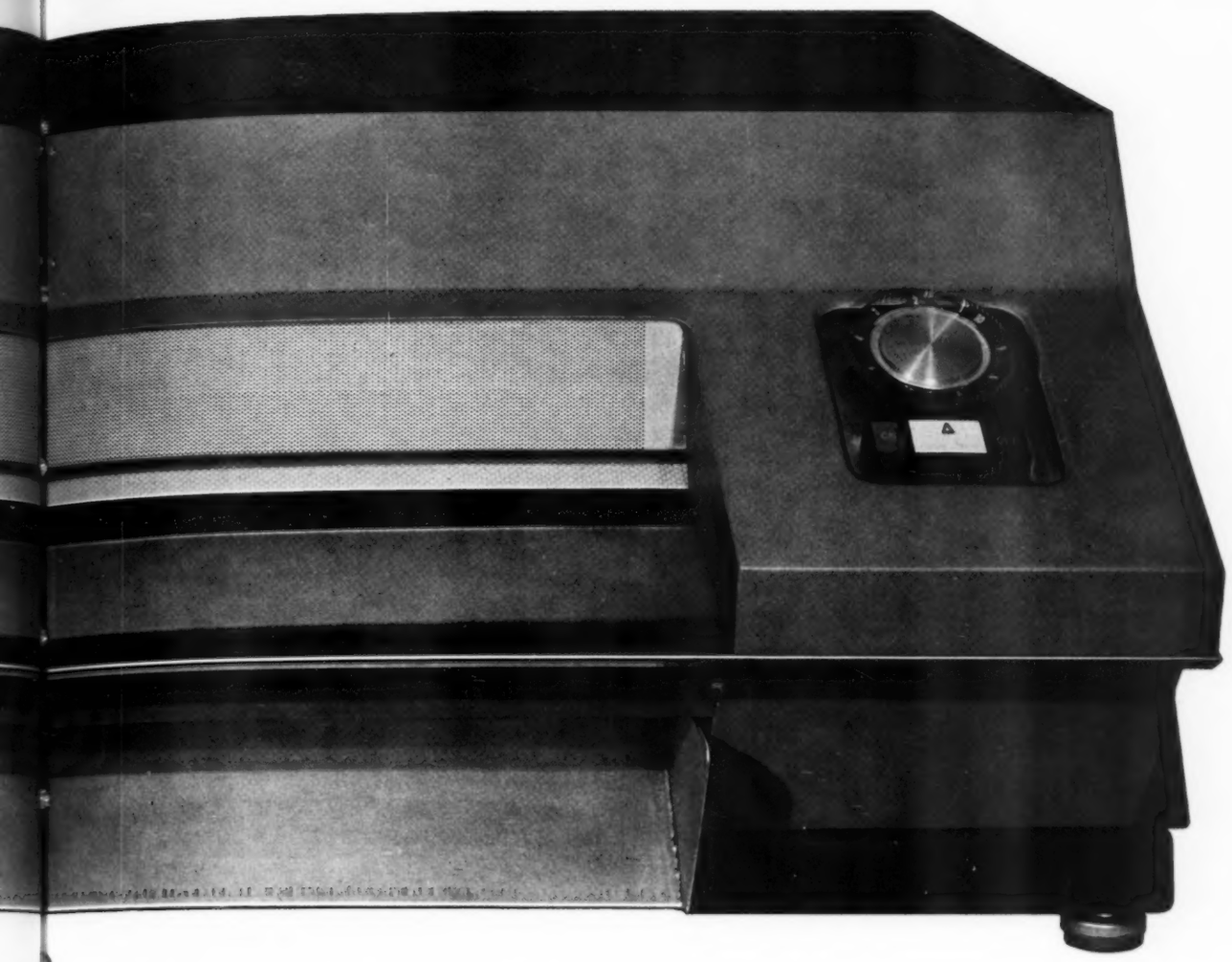

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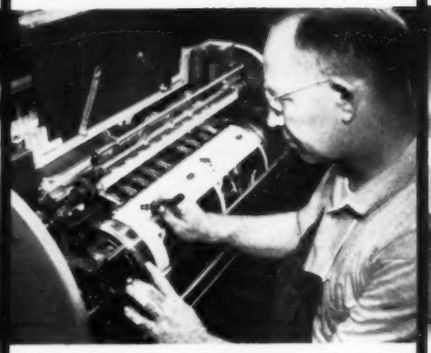

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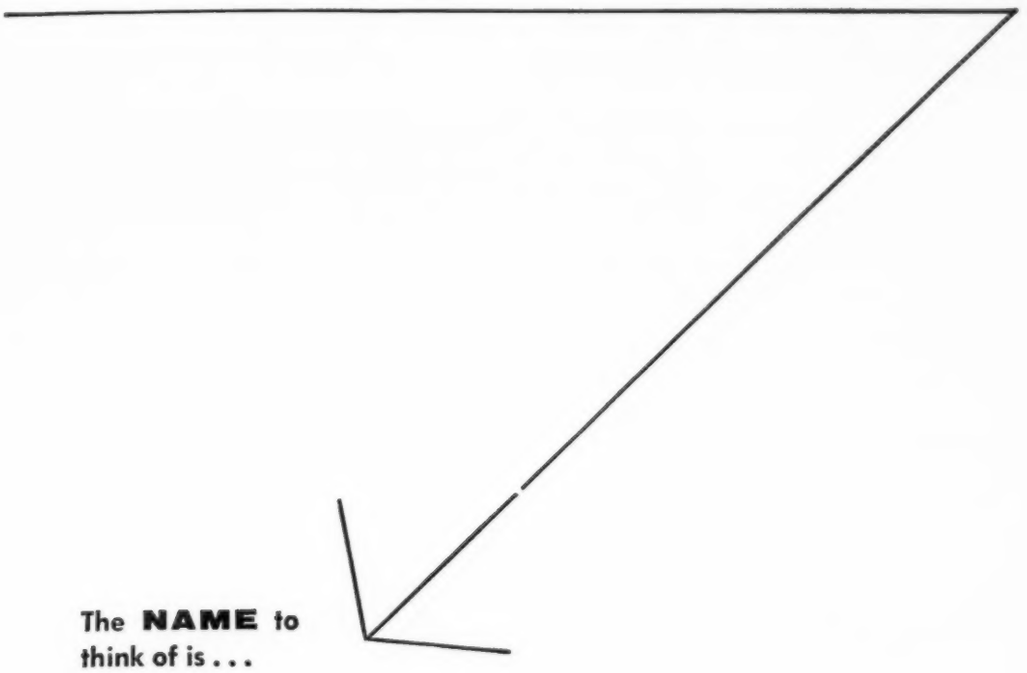

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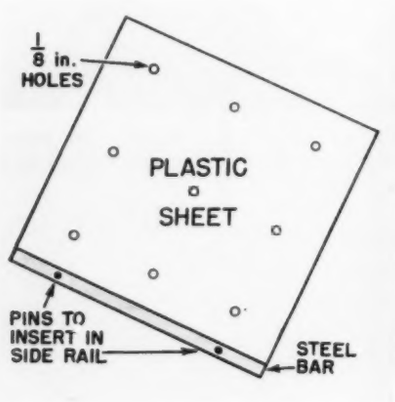
REGISTERING COLOR PLATES

Some newspapers that do not have special equipment for lining up color plates use a sheet of clear



plastic fastened to a steel bar. The steel bar has two pins which are inserted into two holes drilled into the side rail of the page chase. This holds the plastic sheet in one position when registering color plates.

A proof of the black plate is pulled on the plastic sheet and, subsequently, this sheet is used to line up the color plate. Trouble is usually experienced at this point when trying to obtain register. To eliminate the frustration of continually having to pick up the sheet and move the plate, nine 1/8 in. diameter holes can be drilled through the plastic sheet as indicated in the illustration.

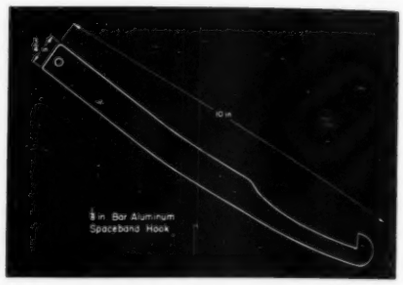
Using a pin point punch, the color plate may be moved into position without raising the sheet at all.— *Buck Taylor, Press-Stereo Foreman, Traverse City (Mich.)* Record-Eagle.

RULES FOR LITHO PLATES

In preparing work for lithographic plates, India ink is often used by the artists with their ruling pens. We found that India ink soaks into the paper, and does not photograph properly for the desired reproduction of clean, sharp lines. After many experiments we now are successfully using red poster paint instead. It dries quickly right on the surface, photographs much cleaner, and is easy to work with because the artists simply dilute it with water to the right consistency.—*Fred W. Ganschow, Los Angeles. Courtesy Kimberly-Clark Corporation.*

HOOK FOR SPACEBAND REMOVAL

The removal of spacebands for cleaning occurs several times per day on high speed tape operated



linecasting machines. To overcome some of the delay encountered when removing the spacebands, a hook can be devised for extracting the entire contents of the spaceband box at one time.

The hook is a slightly curved 10 in. long by 3/4 in. wide piece of aluminum approximately 1/8 in. thick. The hook is inserted through the slots in the spacebands and all are removed in one motion.

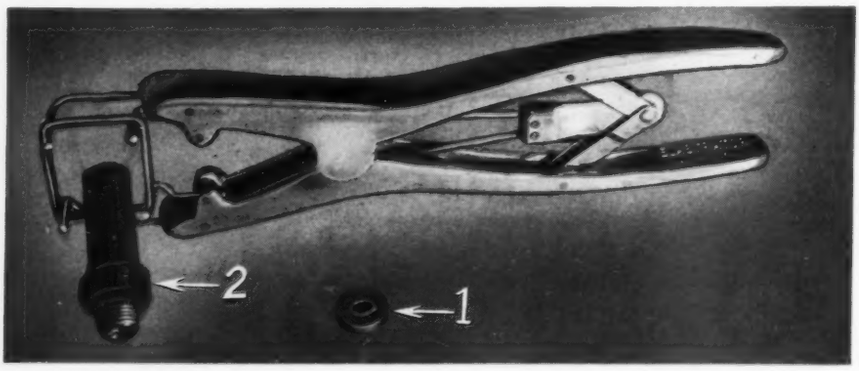
More time can be saved by using two sets of bands, one set being cleaned while the other set is in use. — *Ronald A. Zimmer, Wm. J. Keller, Inc., Buffalo, N. Y.*

Clamp Rings for Press Feeder Hoses

Shown in the illustration is a rubber (Neoprene) ring expander which is used when applying a clamping ring 1, to vacuum and low pressure feeder hoses on cylinder or flatbed presses. The Neoprene rings are used in place of metal clamps.

Over-all length of the expander tool is 9 1/2 in. When the expander pins are in closed position, a clamp ring is slipped over the prongs. When pressure is exerted on the handles the ring may be expanded as much as 1 1/4 in. The ring (still on the prongs) is then slipped over the hose at the fastening point and the expander tool prongs are then disengaged as shown at 2.

The rings or clamps in this instance are cut from 5/8 in. Neoprene hose approximately 1/8 in. thick. Because of the great expandability of the ring material, the clamping size of the ring is automatic. — *James Austin, Newark, O.*



Neat and substantial clamp for press feeder hoses can be applied quickly with this tool.

NON-PI AD TRANSFER FIXTURE

The fixture described here is used for transferring or sliding type composed advertisements, after they have been molded, from the stereotype molding roller bed back to the galley. The fixture can be made to accommodate ad widths up to 7 col.

It is easily applied to the face plate of the molder bed and may be removed quickly when page forms are to be molded. A type composed

AT THE FEEDER...

control

EVERY INCH OF THE WAY

Your investment in either a new Harris 60" or a 77" press starts paying off right at the Feed/Register Control Zone. It is here that good lithography must begin with positive sheet separation, complete stabilization and hairsplitting register.

From the time the sheet in the feeder pile is contacted by the pickup suckers until it is firmly gripped in precise register on the feed-in cylinder, it is under positive, automatic control.

Once stabilized and in register, the sheet continues under constant control through transfer, printing and delivery. In each of four key zones Harris design elements "sense" and respond quickly to variations in materials, to changes in operating conditions. Factors that cause down time and affect quality are controlled every inch of the way.

This is Harris *Control Zone Design.*

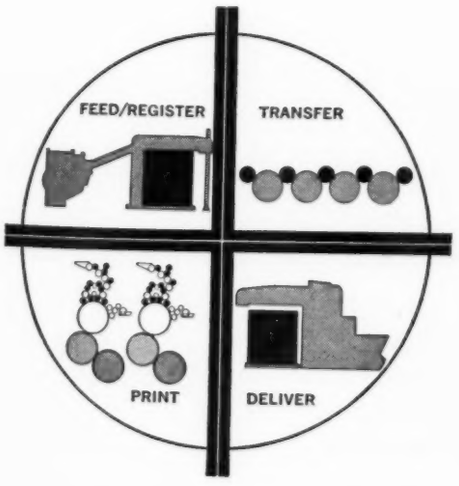
It is a good thing to have in your next press. Ask your Harris representative for a complete run-down on Control Zone features—important reasons why a man does his best work on a Harris.

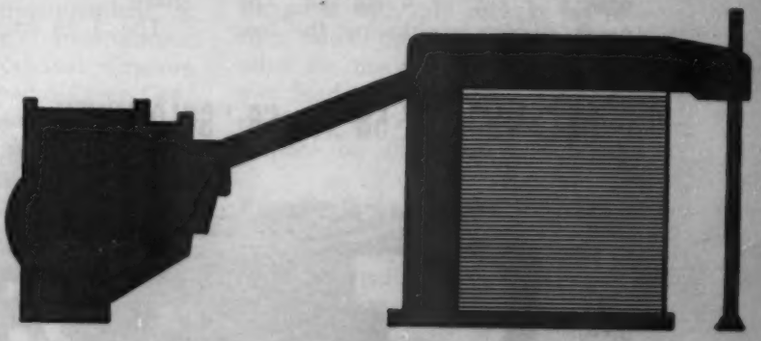
HARRIS - SEYBOLD

A Division of Harris-Intertype Corporation

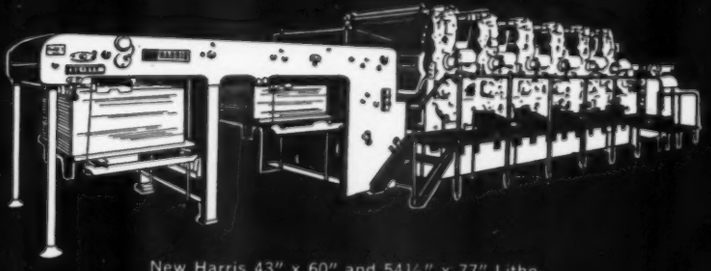
4510 EAST 71st STREET • CLEVELAND 5, OHIO

HARRIS INTERTYPE CORPORATION



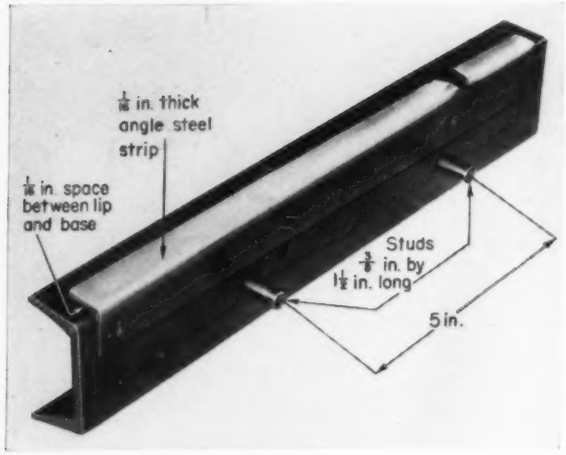


FEED/REGISTER CONTROL ZONE — to separate, stabilize and register



New Harris 43" x 60" and 54½" x 77" Lithographic Presses. Available up to six colors in commercial and folding carton models.

For More Information Circle 82 on Reader Service Card



This non-pi ad transfer fixture may be made from either channel or angle iron and is intended for attaching to stereo mat rolling machines. The model shown is approx. 10 in. wide and is used as an aid in sliding 1 col., 4 col. or 5 col. ads from the stereotype molding roller bed back to the galley. The studs (or pins) serve to hold the fixture rigidly in place during the galley transfer operation.

ad can be returned to the galley in 10 sec. When sliding an ad back into its galley from the roller molder bed by hand without the fixture, up to 5 min. time is required, especially in the case of 6 col. ads.

The fixture may be made either from channel or angle iron. The one shown in the picture is approx. 10 in. wide for sliding a 1 col., a 4 col. or a 5 col. ad back to the galley. The notch in the lip is for use with a 1 col. or 4 col. ad. The notch permits positioning the foot of the galley under the lip ready to receive the ad without danger of being pied in the transfer.

Two 3/8 in. diam. steel studs, approx. 1½ in. long, were butt welded to the channel iron as shown. These studs or pins hold the fixture rigidly in place during the galley transfer operation. To hold the fixture, two holes were drilled in the matrix roller bed face plate for reception of the two steel studs.

The 1/16 in. thick steel lip is fastened to the channel iron by two fl. hd. screws. It is fastened to allow free insertion of the 0.050 in. galley bottom plate thickness between lip and channel iron to hold the galley securely during transfer.

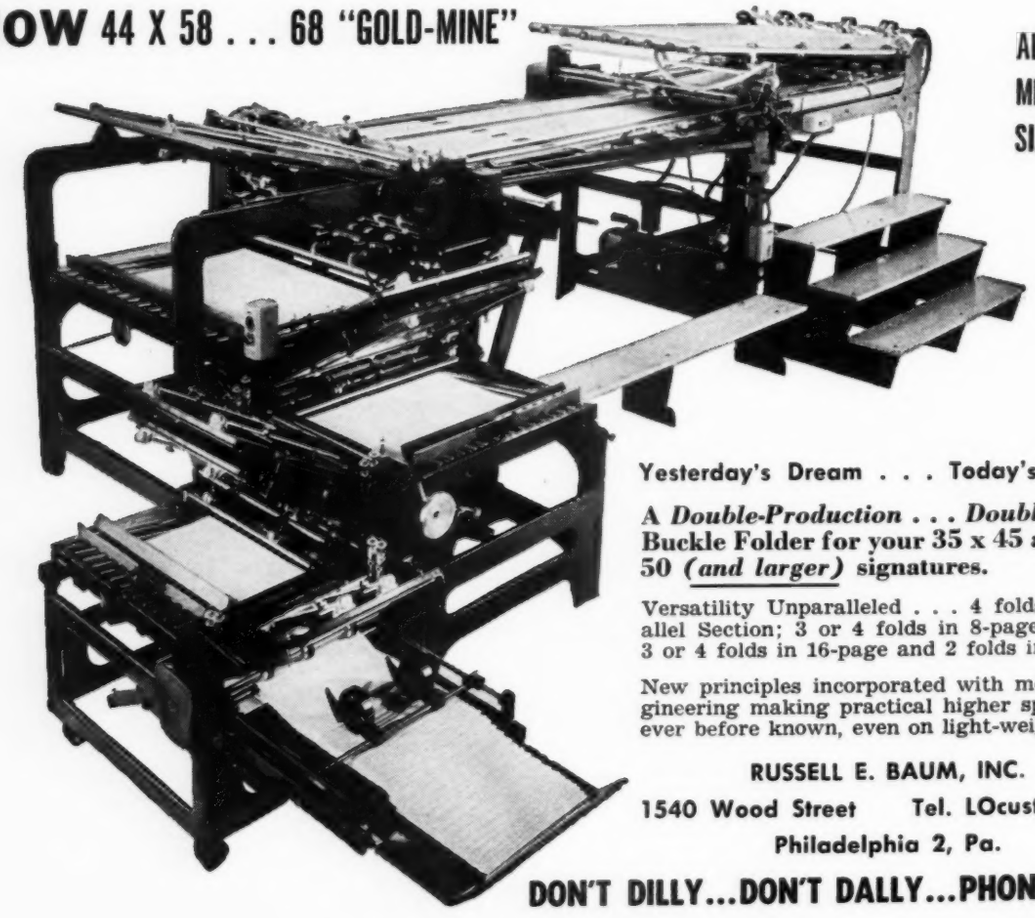
The entire fixture itself should be positioned so the upper surface of the lip is slightly below the top surface of the molder bed.—*H. J. Ratcliffe, stereotype foreman, Fall River (Mass.)* Herald-News.

For the Reader

A chance to be paid for ideas which have netted savings in time, money and effort in your printing plant is offered readers of *Printing Production*. If your idea is accepted for publication it will be printed in the Idea File, a regular *Printing Production* feature, and a check will be mailed to you.

Send as many as you wish to: Idea File Editor, *Printing Production*, 1276 W. 3rd St., Cleveland 13, O.

NOW 44 X 58 . . . 68 "GOLD-MINE"



ALSO PRECISION MFD. in 36 X 48 SIZE and 39 X 52

Yesterday's Dream . . . Today's Reality

A *Double-Production . . . Double Profit* Buckle Folder for your 35 x 45 and 38 x 50 *(and larger)* signatures.

Versatility Unparalleled . . . 4 folds in Parallel Section; 3 or 4 folds in 8-page Section; 3 or 4 folds in 16-page and 2 folds in 32-page

New principles incorporated with modern engineering making practical higher speed than ever before known, even on light-weight stock

RUSSELL E. BAUM, INC.

1540 Wood Street Tel. LOcust 8-4470

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DON'T DILLY...DON'T DALLY...PHONE COLLECT

For More Information Circle 18 on Reader Service Card

Downie Heads LTF Research Committee—Robert E. Downie, supervisor of printing developments, Marathon Division, American Can Co., Menasha, Wis., has been appointed chairman of the research committee, Lithographic Technical Foundation. As chairman, Downie succeeds U. G. Colson, president, U. O. Colson Co., Paris, Ill., who served as committee chairman for two years and as co-chairman for one year. Downie has been a member of the committee since 1957 and has served on the LTF board of directors since 1959. The research committee meets twice a year to review LTF research programs and to recommend areas in which research should be conducted by the Foundation.

Research Papers to be Published—Proceedings of the Fifth International Conference of Printing Research Institutes are to be published in book form by the Pergamon Press Incorporated.

The book, entitled *Advance in Printing Science and Technology, Vol. I—Printing Inks and Colour*, is to contain 29 papers authored by both American and European research scientists. Topics include: Chemistry and Physics of Lithography, Color Control, Ink Transfer, Newspaper Printing, etc.

A prepublication price of $5 per copy has been set for orders received prior to Sept. 1; post-publication price is $8.50. Orders may be sent directly to: Pergamon Press Inc., 122 E. 55th St., New York City.

Sun Creates Research Post—Sun Chemical Corp. has announced the appointment of Samuel B. McFarlane, Jr., as vice president-research, a newly created position.

According to Norman E. Alexander, president, the appointment of McFarlane is an initial step toward the expansion of Sun's research program. It is reported that, among other things, the expanded program will broaden the research work in printing inks.

Previously, McFarlane has served as manager of research laboratories for Celanese Corporation and vice president-technical director of Onyx Oil & Chemical Co. He is a graduate of the University of Maryland and has studied at Brooklyn Polytechnic Institute and Massachusetts Institute of Technology. He is a member of eleven learned societies in the United States and two in England and the author of *Technology in Synthetic Fiber*.

Intaglio Expands Research Program—Frank A. Sportelli has been appointed vice president in charge of research, Intaglio Service Corp. His appointment is one aspect in the company's expansion of research activities. Sante Flabiano will continue as director of research. The expansion of the research activities of Intaglio will be devoted to technical progress in both publication and packaging gravure.

Sportelli was associated with Intaglio as shop superintendent in 1936. A co-founder of International Color Gravure, National Gravure Cylinders and Imperial Color Gravure, he is credited with the development of the Convertype method for converting letterpress plates to gravure and the pioneering of oversize cylinders for printing linoleum. Sportelli served as treasurer of the Gravure Technical Assn. from 1953 to 1959.

Rapid Roller Names New Technical Director—A. M. Wightman has been named to succeed the retiring Philip Schwartz as technical director of Rapid Roller Co. A graduate of Purdue University School of Engineering, Wightman has had 25 years of experience in the rubber industry and in the Graphic Arts. He has been associated with the Dayton Rubber Co. and with the B. F. Goodrich Chemical Co.

Insert Fruit Drink Samples In TV Guide Publications

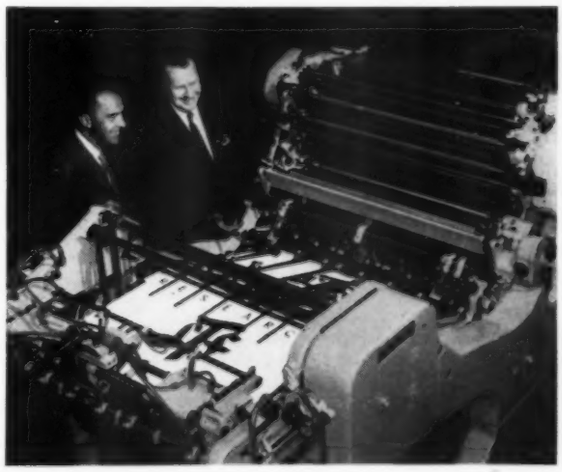
Inserting a food product in a nationally distributed magazine, *TV Guide*, has been accomplished by several Triangle Publication plants.

The insert consisted of two envelopes of grape drink concentrate attached to a sheet of 72 lb. Spring Mill Index which was printed in two colors. It was necessary to limit the contents of the packages because of the bulk problem in binding operations.

In handling the inserts, two were printed two up. The envelopes were staggered with one package on the right side of the top bind-in and the other on the left side of the bottom bind-in. This staggering was necessary in order to obtain proper balance on the binding machine.

Reprint Graphic Arts Articles

The fifth annual edition of *Graphic Arts Progress* has been published by Fraser Paper, Ltd. The publication consists of reprints of articles dealing with the latest Graphic Arts developments. The articles are chosen from entries submitted by the Graphic Arts trade press. Copies are available from Fraser Paper representatives.



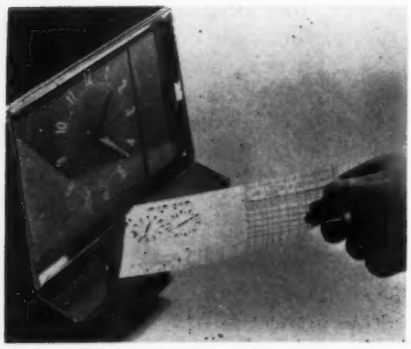
Harris Loans Press for LTF Research—A Harris 23 in. by 36 in., two color offset press is being loaned to the Lithographic Technical Foundation, Inc., for research purposes by Harris-Seybold, Div. of Harris-Intertype Corp. Inspecting the press are George C. Houck (left), president, Harris-Seybold, and William H. Webber, executive director, LTF.

EQUIPMENT AND SUPPLIES

You may easily and quickly obtain additional information on the new equipment, supplies and services mentioned on these pages by completing the special Reader Service Card conveniently found in this issue.

CALCULAGRAPH AUTOMATICALLY COMPUTES-PRINTS ELAPSED TIME

An automatic elapsed time computer, engineered by Calculagraph Company, is designed to shorten the time required to collect job cost information. Used as an integral component of most any cost control system, the Calculagraph elapsed



time computer automatically computes and simultaneously prints elapsed time—the difference between start time and finish time in a given operation.

Programmed by the user to deduct automatically non-working intervals, such as lunch periods or other breaks, the Calculagraph prints only the actual time worked. Time per operation or individual machine is instantly available.

When most any standard size tabulating or job card is inserted into the instrument, the date and exact starting time are recorded automatically on the card. At the finish of a given operation or at the end of a shift the card is again inserted and the actual working time is printed in hours and tenths, or in hours and minutes. From four to six legible carbon copies of an individual punch operation may be obtained.

Enclosed in a lightweight aluminum cover, the Calculagraph employs a positive jump advance of either 1/10 hr. or 1 min. and provides a positive reading of elapsed time. Weight of device is approximately 16 lbs. Circle No. 263 on Reader Service Card.

41 IN. PRE-ANGLED CONTACT SCREEN INTRODUCED BY ROYAL ZENITH

Introduction of a 41 in. pre-angled circular contact magenta or gray contact screen has been made by Royal Zenith Corp. Developed by Policrom, Italian Graphic Arts manufacturer, the screens are also available in 18 in., 24 in. and 31½ in. sizes, all up to 200 line.

With the angles of inclination indicated on the edge of the screen, the operator marks a center line on the camera back. Then by rotating the screen 45 deg. or 90 deg., and guided by the engraved notations on the edge, he obtains the desired angle quickly.

Also available is a new four-angle Process Pack of rectangular contact screens for three or four color process work. These packs consist of three or four screens in 15, 45, 75 and 90 deg. angles. Sizes range from 8 in. by 10 in. to 24 in. by 30 in. in 50 to 200 line models. Circle No. 262 on Reader Service Card.

REDESIGNS THREE MODELS OF ATLANTIC REPRO PROOF PRESS

According to the Atlantic Numbering Machine Co., its reproduction proof press has been completely redesigned. Three

models are available which take paper sizes 14 in. by 18 in., 17 in. by 23 in. and 20 in. by 27 in.

Features mentioned by sponsor include the following: Large accurately machined cast iron impression cylinder; seven roller ink train is removable for cleaning; accurate register is accomplished by front and side guides and grippers which are controlled by foot pedal; ball bearings are used at all important points, and the printed sheets are delivered automatically.

All models can be equipped with an electrically driven ink drum, which in turn drives the ink train. Circle No. 274 on Reader Service Card.

PILE INVERTER MAY NOW BE OPERATED AT FLOOR LEVEL

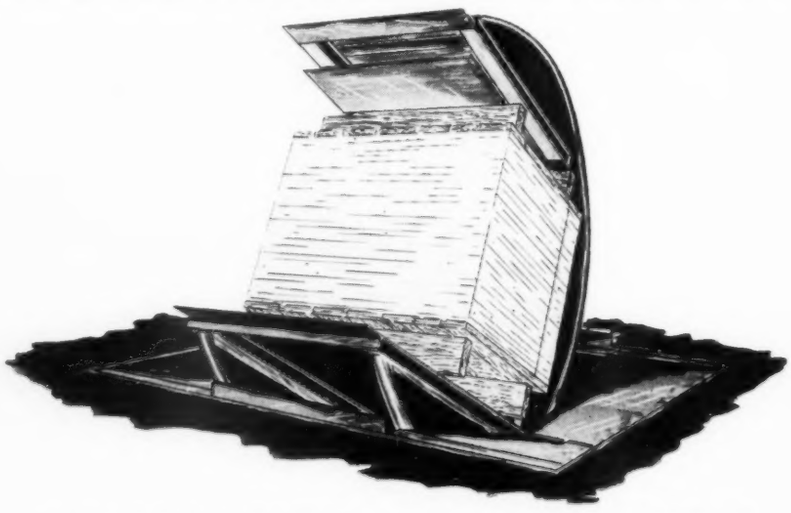
Roto-Verter announces a depressible floor construction for use with the basic Roto-Verter pile inverter. Skids of paper or board may be loaded and unloaded with a hand skid jack or a fork lift.

In the illustration, the Roto-Verter is mounted in a pit or well with the loading deck level with the surrounding floor. On each side of the unit there are depressible floor sections which, when raised, provide a level floor for loading and unloading, and when depressed, allow an extended load to swing below the floor line.

A frame approximately 7 ft. sq. for anchoring to the surrounding floor is provided to which the depressible floor sections are attached. A supporting mechanism at the center actuated by a cylinder operating under 30 p.s.i. pressure (either water or air) lowers and raises the depressible floor sections.

Interlocks with the Roto-Verter are provided and prevent rotation of the load with the floor sections in raised position. Extension of the base members for connecting to existing floor beams in a multi-storied building can be provided.

The basic Roto-Verter, it is said may be floor mounted and used with a fork lift truck. It is operated with a ¾ h.p. electric motor drive and inverts loads up to



Loading deck of new Roto-Verter pile inverter is level with surrounding floor.

10,000 lbs. in less than 90 sec. Circle No. 275 on Reader Service Card.

VINYL ENGRAVING MATERIAL FOR MAKING FLEXIBLE PRINTING PLATES

Koroseal 60 is the name given to a new vinyl engraving material developed by B. F. Goodrich Industrial Products Co., Div. of B. F. Goodrich Co. The material is designed to be engraved in making flexible plates for printing bags of all types, including multiwall, fabric and burlap.

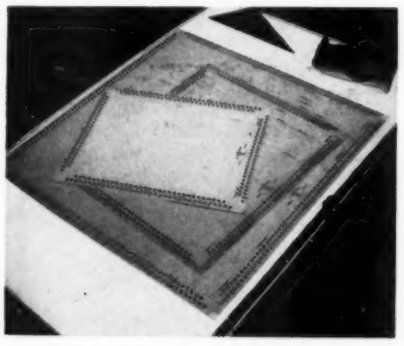
According to Goodrich, Koroseal permits up to 30% faster press speeds. The material does not distort under printing pressure, the company states, and does not require slow press operation to let plates recover original shape between impressions.

Other claims for the new platemaking material are that plate life is extended greatly; the new compound is a nearly homogenous vinyl mass; nothing is added that can cause plate pitting; dense plate surface permits good ink coverage; plate surface releases ink readily, and washup time is shortened since ink does not soak into the plate surface.

Sponsor states Koroseal 60 contains no ingredients which bleed or migrate when used with glycol or oil based inks. Because the material has no pigmentation, plates can be cut easily and fast. It is furnished in sheets 36 in. wide by 10 ft. long. Circle No. 258 on Reader Service Card.

NEW SIZE PEG SYSTEM BOARDS FOR COLOR AND STEP-REPEAT WORK

With addition of three new models of the Raden C Auto Step Boards, reports Raden C Auto Step Co., there are now eight sizes available. Sizes now



range from 20 in. by 16 in. up to and including 53 in. by 43 in. The boards are used by lithographic platemakers for producing registered color plates as well as step and repeat plates. There are calibrated long and short (horizontal and vertical) step masking sheets for each size. Circle No. 270 on Reader Service Card.

SPRAY FOR RUBBER PLATES DESIGNED TO IMPROVE PRINTING

A surface coating for rubber or synthetic printing plates that is claimed to permit fine type, reverses and screens to print cleaner has been introduced by Mosstype Corporation.

This Platekote coating is said to reduce greatly the tendency of halftones and other difficult subject matter to fill in during printing. Its use, it is also claimed, results in less frequent need for washups and longer plate life.

Platekote is packaged in 20 oz. push button cans and is sprayed on plates prior to the press run. It may be used with natural and synthetic rubber plates and with all kinds of flexographic inks. Circle No. 269 on Reader Service Card.

MULTILITH SIDE GUIDE CONTROL

A side guide adjustment for Multilith models 1250, 1275 and 2006 has been manufactured by Prolith Products. Called Regi-Dial, the control is said to give left or right control in adjustments from 0.001 in. to ½ in. The Regi-Dial also allows the changing of paper positions while the press is running and contains an automatic lock to maintain settings. Circle No. 278 on Reader Service Card.

PUNCHED TAPE CONVERTER ENABLES MACHINE OPERATION BY ANY SYSTEM

The Friden punched tape code converter is designed to convert one tape coding system to another to enable operation of different but allied tape-actuated machines. Friden, Incorporated reports its punched tape code converter integrates all code variations into tape carrying the desired code.

Specifically, with the Friden code con-

For More Information Circle 140 on Reader Service Card→

OXY-DRY INK OFFSET AND *Blocking* PREVENTER

ELECTRONIC DISPERSAL DRY POWDER SPRAYER

CAN KNOCK THE BLOCK OFF

any film or foil printing or converting process in the world

A fine, even coat of OXY-DRY ink offset prevention powder will knock the block off of any sheet or web of film or foil—at any point in processing from manufacture through printing or converting.

The most efficient, easiest-to-operate device for laying down the powder is the OXY-DRY ink offset preventer. OXY-DRY starch powder will increase the speed of ink set and drying and materially increase ink vapor evaporation. Where ink offset *is* a problem, as on most foil runs, *nothing* excells the OXY-DRY ink offset preventer.

Would you prefer to call it "slippage"? make positive sure your film or foil will s or jog perfectly and convert without sticki in any way, from ink offset or blocking, an OXY-DRY ink offset preventer.

***Research note:* Oxy-Dry has tackled the job removing dry powder (and any other pa cles) from film and foil. Some remarka results are assured with the OXY-DRY SH CLEANER.**

HOW TO BUY OXY-DRY

DON'T DELAY PROFITS—*If* you want a head-to-head, barrel-head deal done, our sales-engineer will visit you promptly. *If* you want us to DETAIL YOU BY MAIL, send us your press or converting machine specifications. Do it, don't delay profits!

OXY-DRY®

SELLS PROFITS TO PRINTERS & CONVERTERS

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STATIC

SIMCO GUARANTEES TO END YOUR PROBLEM!

Simco engineers have developed an electronic static eliminator that is *unconditionally guaranteed* to stop static, no matter what machinery or materials are involved! Yet this Simco *"Midget"* is the *least expensive, safest* means of neutralizing static available! The Simco *"Midget"* consists of a power unit and one or more static bars—designed to fit any machine. It's simple to install; its operating cost is less than 1/10c per day! Simco is America's largest manufacturer specializing in anti-static equipment, anti-static cleaning devices, anti-static sprays, and meters for locating and measuring static. Write for full facts today!

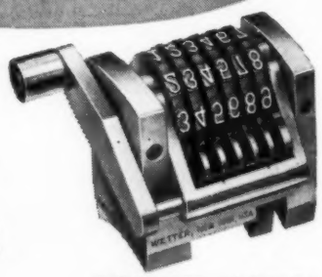
the SIMCO company
920 Walnut Street, Lansdale, Pa.

For More Information Circle 161 on Reader Service Card

MIDGET MODEL

No.

Want Clean, Accurate NUMBERING?



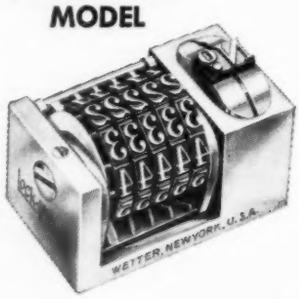
DO IT BETTER WITH

ROTARY MODELS
(Right angle or parallel)

wetter

Fine workmanship, rugged construction insure crisp accuracy, clean impressions, perfect sequence *—every time!*

LOCK-WHEEL MODEL



NONPAREIL MODEL

Write for information and prices

wetter NUMBERING MACHINE CO.
ATLANTIC AVENUE & LOGAN STREET · BROOKLYN 8, N. Y.
ONLY UNION MADE NUMBERING MACHINE IN U.S.A.

For More Information Circle 188 on Reader Service Card

In this picture, the operator is typing a manuscript and simultaneously punching an eight channel tape. The tape may then be placed in the Friden code converter (right) where it can be converted automatically to a new and differently coded tape to operate another machine, such as the Flexowriter or a Teletypesetter actuated linecasting machine keyboard.

verter, any five, six, seven or eight channel code system may be converted, one to the other. For example, any data in an eight channel tape being produced by a Friden Flexowriter automatic writing machine can be wire-transmitted by automatically repunching codes in five channel tape on a code converter. At the receiving end of the line the five channel codes may be converted to eight channel, or even six or seven channel codes, depending upon requirements of the application.

Uses for the tape converter in the printing industry include tapes for Graphotype address plate embossing and computer input. The Friden unit can be obtained with special punch and reader to enable converting tapes for Teletypesetter operation. The code converter is preset at the factory according to the customer's input-output requirements.

To operate the converter, a power switch is thrown. A tape feed switch causes a tape lead to be fed out; then when actuated and released a start-read toggle will cause tape reading to begin. Code conversion occurs simultaneously through the control panel and codes are punched in the output tape. Another switch is used to stop the converter.

Tapes are read at 1180 codes per min., and widths of 11/16 in., ⅞ in. or 1 in. are acceptable. Adjusting means are provided for changing one width tape to another. Circle No. 260 on Reader Service Card.

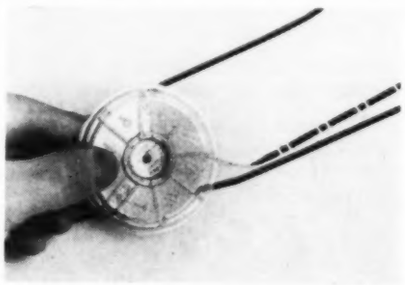
OVERLAY AND OPAQUING FILM

A multi-use overlay and opaquing film, called Para-Paque, is described by Para-Tone, Inc., as an adhesive backed transparent and dimensionally stable film for use by photoengravers. It may be employed for masking, blocking or opaquing in preparation of artwork, blueprints and photo negatives and positives.

Sponsor says Para-Paque is a light-safe, deep red film that completely blocks light passage up to 15 times normal exposure. Being highly transparent, it is said, Para-Paque facilitates overlay and blocking. The film is adhesive backed and is claimed to withstand temperatures up to 250 deg. F. Circle No. 259 on Reader Service Card.

PLASTIC CONTAINER DISPENSES TAPE

A tape dispenser which can be used to dispense narrow industrial, statistical and charting tapes for graphs, charts and



plant layouts has been marketed by Chart-Pak, Inc.

The Tape-Saver dispenser has a diam. of 1¾ in. and is designed for tapes ranging in width from 1/64 in. to 2 in. The tape is said to be completely enclosed and is exposed only when used. The container, made of transparent plastic, reveals the color, size, pattern and amount of tape left on the roll. Circle No. 279 on Reader Service Card.

UTILITY AND INKUP TABLES

Its utility and inkup tables, states Leedal, Incorporated, are specifically designed for processing pre-sensitized plates. The top working surface is made of stainless steel for easy cleaning and resistance to the chemicals used in Graphic Arts processing. The top is reinforced with ¼ in. plywood backing with rounded corners to accommodate plate clamps.

A drawer is supplied in which to store plates and supplies. A bottom shelf is furnished for storage of large bottles and cans and is accessible from either side.

Tables are furnished in the following sizes: 25 in. by 29 in.; 35 in. by 45 in.; 45 in. by 55 in.; 59 in. by 83 in., and 65 in. by 85 in. The latter two sizes are furnished with two drawers. Circle No. 268 on Reader Service Card.

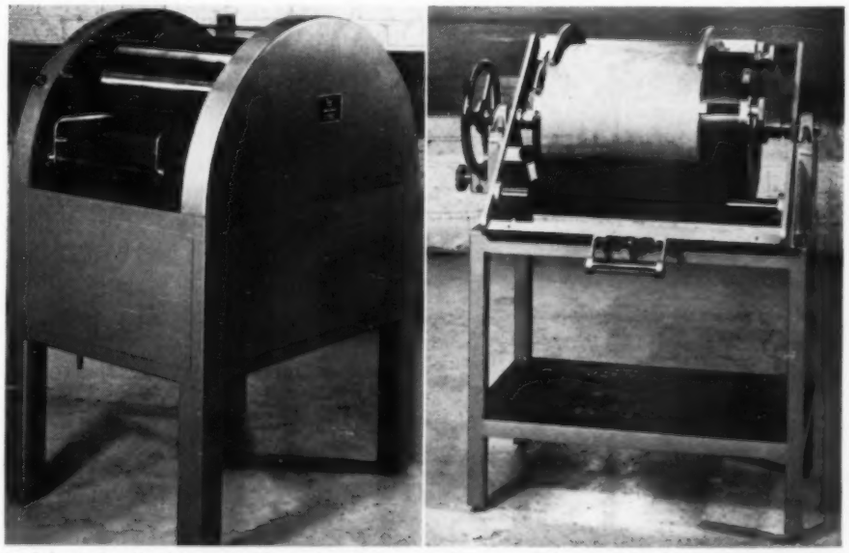
PLATE CURVING-MOUNTING TOOLS FOR NEWSPAPER DIRECT PRINTING

To enable printing direct from original flat photoengraved newspaper page color and black plates in lieu of the usual stereotype plate, Sta-Hi Corporation has developed two machines for curving and mounting the plates on saddles.

The first machine, called Curv-a-Plate, curves the flat photoengraved plate to fit the saddle properly. The second machine has been named Mount-a-Plate, and is used to mount the curved engraving on the saddle and adhere it with tape, so the combined thicknesses will correspond to stereotype plate thickness.

Before the original engraving is passed through the curving machine, two-side adhesive tape is applied to the back of the plate to adhere it to the saddle. It is also curved along with the engraving.

The Mount-a-Plate machine is used to adhere the curved photoengraving to



At left is Sta-Hi Corporation's Curv-a-Plate machine; at right is the Mount-a-Plate machine. Both are used to curve and mount photoengravings on saddles for direct printing on newspaper presses. Two sided tape is used to adhere plate to saddle.

the saddle through rolling pressure. At this time, the plate is bonded to the saddle with the two-side adhesive tape. Before a plate is mounted on or bonded to the saddle, the operator adjusts guides on the machine, using a micrometer scale shown in the picture at right side of the cylinder. Circle No. 277 on Reader Service Card.

ZINC POWDERLESS ETCHANT

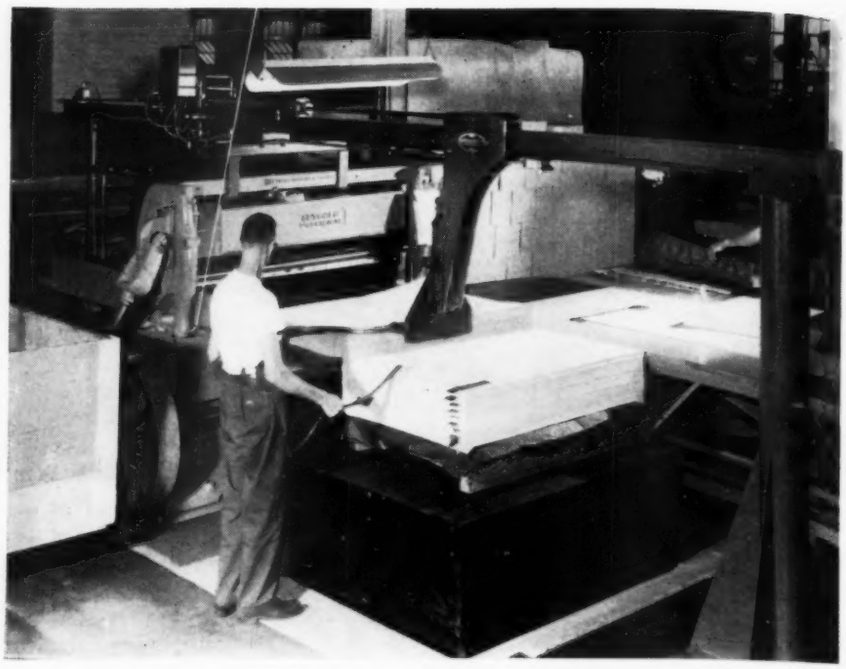
Development of a new etchant, Special Micro-Mix, for the powderless engraving of zinc letterpress plates has been announced by Rolled Plate Metal Co.'s powderless etch laboratories. Field testing has just been completed.

Special Micro-Mix, states maker, is formulated to provide acid bath stability for engravers with intermittent operations and afford highest day to day carry over qualities. In addition, this mixed ready-to-use chemical produces zinc engravings with smooth shoulders and cleanly defined corners, according to Rolled Plate's photoengraving chemists. Circle No. 267 on Reader Service Card.

HARRIS-COTTRELL PREREGISTER SYSTEM FOR WEB OFFSET PRESSES

The Cottrell Company has announced a preregister system for Harris-Cottrell web offset presses. The company stated that it was designed to reduce makeready and improve accuracy of register. Scribe lines drawn on the plate bender and the subsequent bending of plates to these lines have been rendered unnecessary. Thus, the company said, visual alignments have been eliminated.

Necessary equipment for the system is a three hole punch, a three pin register strip and a plate bender. The punch is used to position holes in each goldenrod sheet prior to negative stripping, and in each plate prior to exposure. The register strip controls register on both light table and vacuum printing frame. Three register pins control register when the punched plate is placed on the bender. Each plate is then bent to the same alignment and locked in register on the plate cylinders.



Automatic paper cutter Unstacker and Trimmer Loader is said to reduce handling of paper.

The punch and pin strip plus the pin equipped bender are available as optional equipment with the company's web offset presses in the 22¾ in. by 38 in. and 35 in. by 50 in. sizes. Circle No. 280 on Reader Service Card.

HANDLING OF PAPER REDUCED USING UNSTACKER AND TRIMMER LOADER

The manual handling of paper at a cutter installation is said to be reduced with the development of an automatic Unstacker and Trimmer Loader. The machine, a product of Charles R. Stevens, Inc., separates lifts of paper from a skid and delivers the lift to the trimmer table where the operator cuts it. It is said by the manufacturer to handle any size or weight of lift without damage to the paper. The machine was designed to operate in conjunction with any cutter installation. Circle No. 281 on Reader Service Card.

STAINLESS STEEL MEASURE

Now available from Leedal Incorporated is a 64 oz. stainless steel measure which is graduated on the inside in both cubic centimeters and ounces. The measure is useful to darkroom personnel, platemakers and others in the Graphic Arts whose work demands the measurement of chemicals, etc. Circle No. 282 on Reader Service Card.

SMALLER 3M MAKEREADY UNIT IS PORTABLE WITHIN THE PLANT

The newly designed 3M press makeready exposure unit, states Minnesota Mining & Mfg. Co., is less than half the size of the previous model, yet will do the same job.

The new unit has been named the MR-2. The company reports that field tests indicate the unit is practically maintenance free. It is compact enough to be portable within the plant.

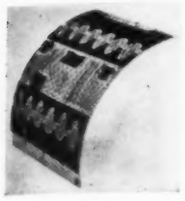
The Harris-Cottrell three hole key register punch is used to position holes in goldenrod and plate prior to exposure in the vacuum printer.

The MR-2 press makeready exposure unit is half the size of the previous model. Minnesota Mining & Mfg. Co. states that the unit is compact enough to be moved within the plant.

The 3M makeready system, it is explained, employs the use of a gas-expandable makeready material and the exposure unit to make overlays for certain types of letterpresses. Circle No. 271 on Reader Service Card.

ALUMINUM PLATE BACKING SHEET

A new aluminum plate backing sheet, called Perfalum, is available for use by platemaking firms.



The material is a product of Ads, Inc. Div. of CSW Plastic Types, Inc. When molded with a specific type of plastic in sheet or granular form, this aluminum sheet is said to back up a Plastalum press plate in a 5 min. cycle for either flatbed or rotary letterpress printing. In the illustration is shown a laminated curved printing plate consisting of a Plastalum plate adhered to the new aluminum backing. Circle No. 264 on Reader Service Card.

2-CHANNEL TIME RECORDER SHOWS ON-OFF TIME OF PLANT MACHINES

The 2-Channel Time Recorder, reports Standard Instrument Corp., is designed to record and compare production time of plant and office equipment. One of the applications, for instance, is the recording of press impression time compared to total operating time (including wash-up, inking, etc.).

Other applications are productivity comparison of two machines, analysis of operation pattern of any machines, determining ratio of any operating function to any other, and recording productive time of packaging equipment compared with total running time.

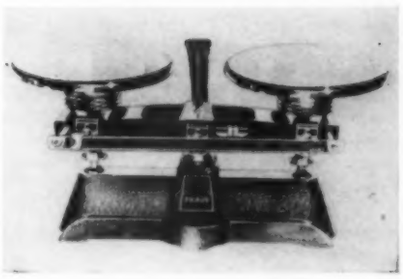
The time totalizer is a read-out counter which continuously furnishes a visual sum of productive time in hours and tenths, or minutes and tenths. Maker claims the time totalizer is an invaluable guide for preventive maintenance, cleaning and overhauling of equipment, parts replacement and production information.

An autograph access window permits making notations directly on the strip chart. In this way, the job number and reasons for down time may be made an integral part of the chart strip data.

Standard chart roll speeds are 1 in., 4 in., 12 in. and 60 in. per hr. Slower charts run as long as 4 mo. without change. Instrument is available for either 110 or 220 V. operation. Circle No. 266 on Reader Service Card.

VAC-LUBE OIL FOR VACUUM PUMPS

Vac-Lube oil is for use on all vacuum pumps, according to nuArc Company. In addition to its lubricating qualities, nuArc claims it provides maximum protection against rust, corrosion and sludging. The oil is said to have been compounded for high film strength, low carbon residue, uniformity and resistance to thinning out at high temperatures. It is furnished in 1 pt. can with pouring spout. Circle No. 257 on Reader Service Card.



GRAMS, OUNCES SHOWN ON SAME SCALE

A new balance scale has been added to the Ohaus Scale Corp.'s line of Harvard Trip Balances. The single beam

Beyond Duplication...

The famous Gutenberg Bible—being one of the first books printed from movable type—can never be duplicated. And because many years ago Imperial was first with type metal Plus and Service Plans, you are assured of metal services beyond comparison.

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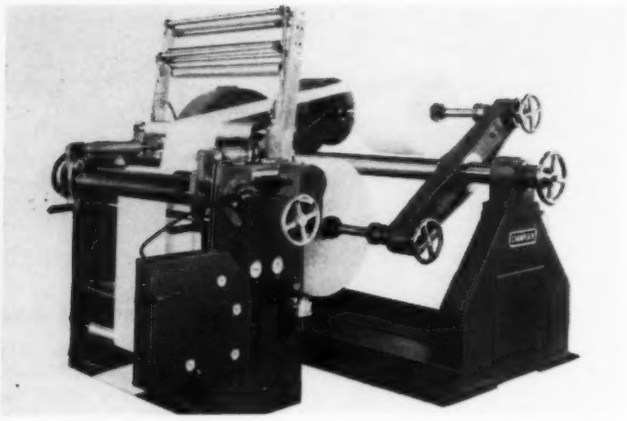
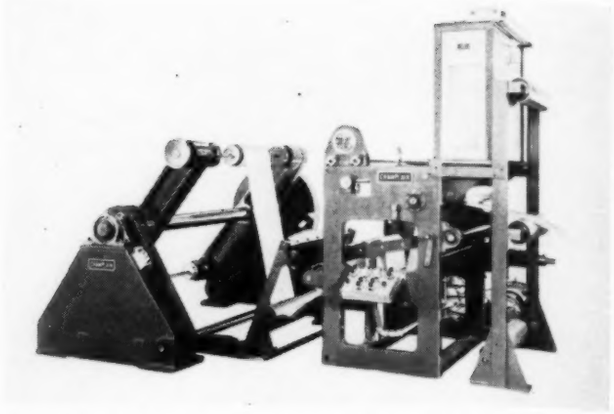


Champlain continuous turnover unwind stand (Type C-15) for light materials. Several automatic controls are features of this unit.



Champlain continuous turnover rewind (Type C-30) for light materials. An optical device permits web viewing when rewinding.

balance is graduated on the metric scale in 0.2 gr. increments to a maximum of 28.4 gr. Its avoirdupois graduations consist of 0.01 oz. to a maximum of 1 oz. The scale is available with either 6 in. diam. opal glass plates or 6 in. diam. stainless steel plates. Circle No. 283 on Reader Service Card.

NEBITYPE CASTS UP TO 42 PICA SLUGS FROM HAND-COMPOSED MATRICES

The Nebitype linecasting machine casts slugs up to 42 picas wide and type faces from 6 pts. to 72 pts. Lanston Monotype Co., Div. of Lanston Industries, Inc., has been appointed exclusive distributor for the equipment in the Western Hemisphere.

It is explained that from 6 to 12 pt. type faces are cast on 6 pt. slug body; from 12 to 72 pt. type faces are cast on 12 pt. slug body. Height of low slugs is said to be 0.765 in.

Sponsor states in addition to Nebimats, Ludlow matrices may be used in the machine. It can also accommodate APL matrices, and if desired, linecasting machine matrices smaller than 12 pt. can be used. In the near future American Monotype display type faces will be available in Nebimats.

Nebitype composing sticks (42 and 84 picas) are available for Ludlow and Nebimat roman and italic matrices. Nebitype furnishes an offset 42 pica composing stick that enables the compositor to combine 18 pt. matrices in the same line with 48 pt. matrices. A Nebitype composing stick is furnished to accommodate 1¼ in. Ludlow matrices in the 60 and 72 pt. sizes.

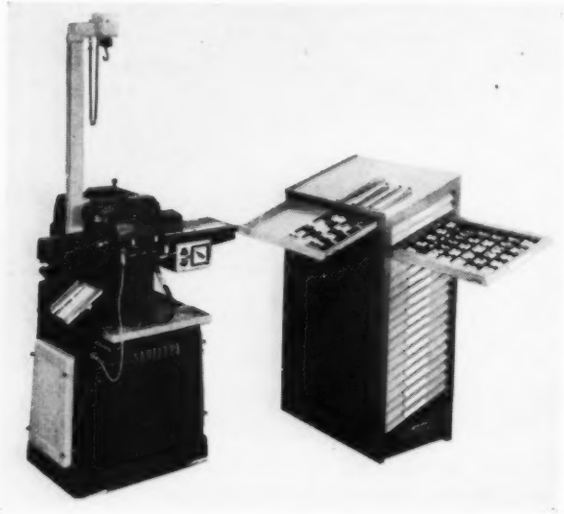
The Nebitype is equipped with automatic electric heating equipment for metal pot and mouthpiece, with separate controls for both. There are two 1200 W. pot heating units and one 600 W. mouthpiece heating unit. These are for use with 220 V., 50-60 cy., and 1, 2 and 3 ph. a.c.

Safety features, sponsor states, are provided to prevent metal squirts. A cast cannot be made until the composing stick is in operating position. Also, a cast cannot be made until matrices and mold are properly locked against the pot mouthpiece. This safety feature is controlled by micro switches.

The mold is water cooled by a self-contained circulating system without plumbing connections. The system operates only during the 9 sec. casting cycle.

The machine weighs 949 lbs. It is 44 in. long, 33½ in. deep and 54 in. high with metal feeder. The metal feeder is automatic in action and uses pigs poured from standard linecomposing machine metal.

Associated equipment available consists of matrix cabinets and carbide tipped saw-trimmer. Circle No. 261 on Reader Service Card.



Nebitype linecasting machine (left) and matrix cabinet are now being sold in this country by Lanston Monotype Co. Unit will cast type face (from 6 to 72 pts.) on slugs up to 42 picas wide. Several kinds of matrices may be used.

UNWIND AND REWIND PRESS UNITS FOR CONTINUOUS HIGH SPEED DUTY

Continuous high speed unwinding and rewinding of paper, paper-backed foil, cellophane and other light materials can be done with two roll handling units announced by Champlain Company, Inc. These turnover type units have been designed primarily for use in conjunction with webfed multicolor flexographic, gravure, offset and letterpress rotary printing equipment.

Sponsor states the units are suitable for use where sensitive control of infeed web tension and rewind web tension and roll hardness are essential. Also, uninterrupted press operation during roll changes can be accomplished through automatic splicing and web transfer.

The continuous turnover unwind stand (C-15) is designed with automatic braking for constant control of web let-off, quick acting positive splicing and automatic and sensitive web tension control. It is said adjustment at each roll position permits accurate web side alignment.

The C-15 unit is also available without the constant tension web feed unit and automatic splicer for non-continuous processing of light materials in conjunction with a rotogravure color unit; a flexographic unit with integral feed, or for use with laminating, coating, slitting, waxing or extruding equipment.

The continuous turnover rewind (C-30) is equipped with automatic independent pull unit, adjustable roll density control for constant predetermined roll hardness, and automatic transfer of the running web to the alternate roll core. An optical viewing device, it is stated, can be added to permit visual inspection of the printed running web while rewinding at high speeds. Circle No. 276 on Reader Service Card.

WEB OFFSET INK FOR NEWSPRINT

A new ink for use on high speed webfed offset presses while printing on newsprint stock is called Econo Black 5179. Announcement was made by Chromatone Printing Ink Div. of Polychrome Corporation. Ink is claimed to set almost instantaneously and prints sharp black copy. It is supplied in 5 lb. cans and 40 lb. pails. Circle No. 254 on Reader Service Card.

SMALL COPYBOARD LIGHT CONVERTER

A light converter designed to allow small camera operators to light their copyboards according to its size has been developed by Natural Lighting Corp. The

converter, named Colortran, was designed for copyboards up to 28 in. high and is said to retain features of larger units. Specifications of the model CSUJ unit include an integral relay, 110 v. a.c. input, Kelvin meter, and timer cord. Its capacity is eight 150 W. lamps. Circle No. 284 on Reader Service Card.

TWO-PROCESS INK DRIER

An ink drier for use in letterpress and offset printing has been developed by Central Compounding Co. Named Coban-X, sponsor says the dual purpose drier produces fast surface drying with a tough, flexible and mar resistant finish. Other claims for the drier are: Improved ink adherence in multicolor printing, elimination of crystallization, and mixes readily with all inks. It may be added in ink fountain or on ink plate. Average use is 1 oz. per lb. of ink. Circle No. 250 on Reader Service Card.

DUTRO COLOR KING WEBFED OFFSET NEWSPAPER AND MAGAZINE PRESS

Waste King Corp. and Orville Dutro have announced that production has started on the Dutro Color King webfed offset press designed for printing newspapers and magazines.

The press is of heavy unit construction and may be assembled into one, two, three or four unit machines. Any unit can be disengaged when not in use. It is powered by an electronically controlled variable speed motor and rated at speeds up to 20,000 per hr. (or 12,000 per hr. with quarter folder) in infinite variations.

The press can be arranged to print a standard size page from 14 in. to 17½ in. by 22¾ in., and a tabloid page from 11⅜ in. by 14 in. to 17½ in.

Stock as light as 30 lb. news to 80 lb. book with the webs limited can be used, but not including glossy finished paper, except when heat drying equipment is added. Maximum roll diameter is 40 in.; maximum roll width is 36 in. Cylinder circumference is 22¾ in. with ⅝ in. printing area loss for the slot. Cylinder is undercut for wipe-on or presensitized wet offset plates. Plate size is 36 in. by 25 in.

The cylinder plate holding mechanism is designed in conjunction with a pre-registering plate jig by means of which the operator can bend both ends of the plate sharply to bring them in register with the marks provided by the platemaker.

Twelve rollers are provided for ink distribution from the 200 cu. in. capacity ink fountain. Five rollers make up the water distribution unit. The water fountain roller is driven by a separate variable speed motor, and water level controls are included. All rollers lift and impression breaks by depressing a stop button.

Impression is held by compressed air so the blanket cylinders will yield to prevent damage to the press from windup.

The Dutro Color King is provided with pyramid infeed rolls and controlled feeding speed to provide automatic tension by a floating dandy roll regulated by compressed air. The outfeed unit provides propeller rolls for separate outfeed for each printed web. Each whole press is equipped with one outfeed mechanism for each printing unit. The outfeed roll immediately above the former contains a hardened center and can be used for a slitter anvil when operating as a tabloid press.

The folder is of jaw type, bored to include a quarter-folder where required. Circle No. 256 on Reader Service Card.

COMPOSITORS! PLATEMAKERS!
Add Savings and Profits with these
MORRISON Modern Time-Savers!

MORRISON SAW TRIMMERS

Morrison Model 3-A

A high speed, highly versatile saw trimmer designed for great strength and durability. Features include: Behind-the-Gauge Workholder, 73-Pica Gauge, 135-Pica Swing-Out Extension Gauge, Miter and Line-Up Gauge, Right and Left Hand Miter Vise, Saw Grinding Attachment with Universal Saw Blade, Emery Wheels, Trimmer Grinder, Waste Receptacle, Motor.

Morrison Model 45

WITH FAST PISTOL-GRIP SAW ADJUSTMENT

Designed for medium-sized plant, with many features of Model 3-A. Capable of high speed production, extreme accuracy and versatility to match the needs of most composing rooms.

MORRISON Special SAW TRIMMERS

BENCH MODEL CABINET MODEL

Compact, low-priced, capable of amazing variety of work, designed for smaller plants where space is limited. Have many features of higher priced models, with many parts and attachments interchangeable.

Morrison Slug Strippers

Simplify plate and type corrections without mortising

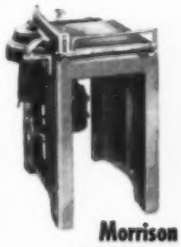
CABINET MODEL BENCH MODEL

Valuable time-savers in any composing room. Cut Linotype, Intertype, Ludlow or APL Slugs, or single type, to any height required, from 0.065" to 0.105" or 0.152". Handle slugs ranging from 1 to 72 points, and up to 30 picas in length. Simple and safe to operate.

Morrison Router and Type High Planer

with Exclusive Micrometer Height Gauge

Double-duty machine, providing accuracy and speed in routing, plate corrections, type-high planing for composing rooms, engraving plants, electrotype foundries.



Morrison Plate Beveler

Important for engraving plants, the Morrison Plate Beveler cuts perfect burr-free shoulders on any square engraving in seconds! Safe, works from *edge* of plate, not top; no possible contact between cutters and fingers, no flying chips. Soft leather protects plate face.

Prove MORRISON Savings in your plant! Write or wire for prices and details.

OTHER MORRISON EQUIPMENT:
Strip Material Cabinets, Waste Receptacles, Universal Saw Blades, Router Bits, Jig Saw Blades.

THE *Morrison* COMPANY
PRECISION MACHINES FOR THE GRAPHIC ARTS INDUSTRY
135 W. MELVINA STREET • MILWAUKEE 13, WIS.

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more papers use MICRO-METAL* and ZOMO-ZINC** for top-quality newsphoto reproduction than any other photoengravers' metals in the world!

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**FOR CONVENTIONAL ZINC ETCHING

ROLLED PLATE METAL COMPANY
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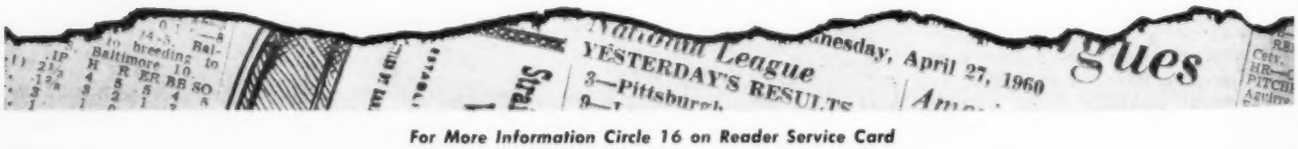
DIVISION OF BALL BROTHERS COMPANY INCORPORATED



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PRINTING INDUSTRY PATENTS

Covering patents issued May 3, 10, 17, 24, and 31.

All new patents for the printing industry are reported exclusively for PRINTING PRODUCTION by Invention, Inc., an industrial patent research organization in Washington, D. C. Invention, Inc., presently has the only staff in the country that examines, in the U. S. Patent Office, the complete printed copy, drawing by drawing and page by page, every one of the several hundred new patents issued each week. PRINTING PRODUCTION is the only trade publication in its field offering a report based on this complete coverage. For copies of the patents listed here specify the patent numbers and send 25c for each separate patent, or 10c for each trade mark or design patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Composing Room:

VERTICAL PROOF PRESS

A compressed air, or hydraulically, operated proof press for newspaper, galley and mat impressions, is vertically operated so that an operator takes or pulls proofs from a type-containing chase directly when the latter is disposed on the conventional cart or dolly. This obviates a physical transfer of the chase from its cart. No. 2,935,019 by F. W. Standiford.

PRINTING DEVICE FOR LINOTYPES

The attachment uses, in lieu of the lines of type being cast, matrices which will directly print the desired single copy and which may be used in the lithographic process. The delivery channel of the machine is provided with inking rollers for inking the type and, on the metal pot, a paper folder and feeding mechanism. No. 2,935 017 by William H. Doyle and Leonard A. Whitehouse.

TAPE SPACER SELECTOR

The apparatus is for use with perforated type input, automatically operated linecasting machines, by means of which the tape perforator operator can apply a corrective signal to the tape to provide the required additional spacebands, either en or thin type, after the perforations for a line of type have been made. This eliminates necessity for rollback or rubout operations on the tape. No. 2,936,-065 by Everett G. Shaffstall, assignor to Shaffstall Equipment, Inc.

COMPOSING TAPE PERFORATOR

The machine uses a keyboard of the type existing on Linotype, Intertype and similar machines, to punch a paper tape and at the same time can perform its usual functions in such a composing machine. The use of a typewriter keyboard is obviated. No. 2,936,831 by Pierre Jean-Baptiste Astier.

CHECKING DEVICE

For the automatic control of composing machines using a perforator and counter of the type shown in Patents No. 2,059,250 and 2,080,424, this device gives an instantaneous check of the association of the proper code notched element with the proper keylever. After each key is depressed, the operator checks the light on a panel board against the counting magazine specification chart. Below the lights on the panel are the numerals indicating the unit count. No. 2,934,948 by Jerry T. Svec, assignor by mesne assignments to Fairchild Camera & Instrument Corp.

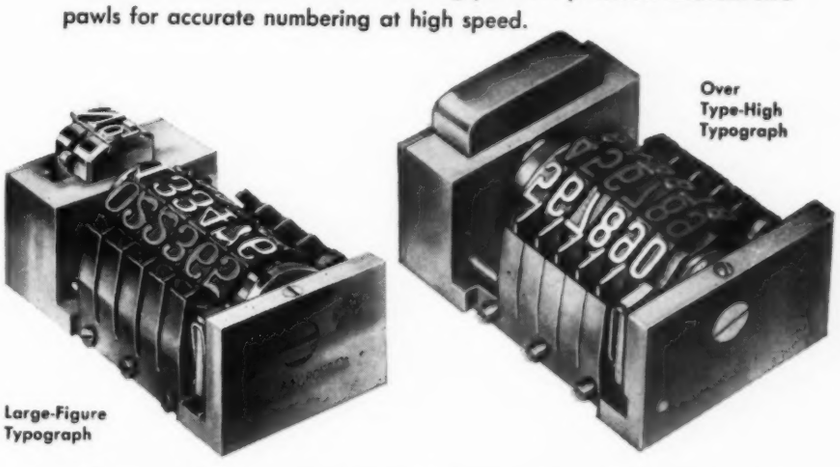
Platemaking:

BURNING-IN OVEN

Etching resists on engraving plates are conditioned in this oven which has a contact thermocouple mounted so as to be urged upwardly against under part of plate. The arrangement includes a radiant heat source controlled by the thermocouple and the plate is heavily heat insulated and placed so that thermocouple receives all of its heat by conduction through plate. Radiant heat source is broken when thermocouple reaches a predetermined temperature. No. 2,935,594 by Paul C. Christenson, assignor to R. R. Donnelley & Sons Co.

BIGAMY
is a matter of NUMBERS

Printers can't help loving *both* of these big figure Typographs when large, easy-to-read numbers are needed for tickets, labels, tags, baggage checks, etc. Developed by Wm. A. Force & Co., Inc., numbering equipment pioneers since 1875, the Large-Figure machine is type high with 7/32" deep-cut Roman or Gothic figures. Where larger numerals are desired, the Over Type-High machine provides ¼" to 1½" deep-cut Roman or Gothic figures, in metal or rubber. These sturdy machines have hardened steel wearing parts . . . precision ratchets and pawls for accurate numbering at high speed.



Over Type-High Typograph

Large-Figure Typograph

Write for Force booklet on Rotary Heads and Typographs.

The FORCE Line of NUMBERS

WM. A. FORCE & CO., Inc.
216 Nichols Ave.
Brooklyn 8, N. Y.

For More Information Circle 64 on Reader Service Card

COPY REPRODUCTION METHOD

The process is of the hectograph type and comprises imaging a master sheet from a transfer sheet having a coating consisting of wax in admixture with a colorless complex. Such complex contains the leuco form of a dye and a non-ionizing surface active agent. After the transfer of the complex to the master sheet, the coloration is developed by oxidation. No. 2 935,938 by Denis Joseph O'Sullivan, assignor of one-half to Eugene Lefebure.

COMPOSITE PHOTOSENSITIVE PLATE

The plate is suitable for use in offset printing and can be prepared by a less tedious procedure than now required. The plate has a photosensitive layer strongly bonded to a base layer which remains strongly bonded to the said layer when exposed to light. Those portions not exposed to light can be removed readily by treatment with water. No. 2,937,085 by Raymond P. Seven and James J. Miyashiro, assignors to Ditto, Inc.

Printing Presses:

DUPLICATOR PLATE CLAMP

Plates can be locked onto short run type duplicators by means of a spring-urged link that engages, in toggle fashion, a remote portion of the clamp. To actuate the clamp, a mechanism is provided to cam the link out of engagement with the clamp after which the mechanism itself is cam-actuated to non-clamping position. No. 2,935,937 by Louis Rossetto and L. Miaskoff, assignors to Davidson Corp.

FLUID DISTRIBUTING SYSTEM

A tube with a longitudinal slot is used in connection with a roller for distributing fluid such as moistening fluid or ink, in a stenciling, lithography or other process. The construction and mounting arrangement of the roller and tube is such that only a single roller need be cleaned at the end of a run and the tube, with or without ink, can be stored until another run is ready. No. 2,935,940 by Edward H. Bronstein.

SILK SCREEN PRESS

The press is adapted for either a regular printing operation or a flood printing operation by the use of a screen mounted for up and down movement relative to the material to be printed upon and a squeegee member movable across the screen in a timed relation with the up and down movement. No. 2,936,705 by G. V. Hall, assignor to Pace Mfg. Co.

SHEET RECEIVING TRAY

The tray and method of handling printed sheets from the machine are designed to prevent smudging and smearing of ink. This is accomplished by conditioning the copy sheets so that they will float in a uniform path from the duplicating drum to a point above the stack of previously imprinted sheets and will settle onto the stack without a sliding action. No. 2,937,021 by Henry P. Keil, assignor to Fixture Hardware Corp.

ROTARY EMBOSSING DEVICE

Tapes for use in wrapping chocolates and similar goods are printed and embossed from a rolled web and rewound into a roll for future use on a packaging machine without crushing the embossed sections. This is accomplished by perforating the tape edges with one or several rows of stamped out points or similar profiles. No. 2,937,591 by Carl-Otto Wagner.

FOIL ATTACHING ARRANGEMENT

A thin flexible printing foil consisting of paper, of synthetic resin, or paper having a metal layer can be attached to the printing drum of a duplicating apparatus without tearing by the use of a projecting, thickened shoulder. No. 2,937,593 by W. and G. Ritzerfeld.

LITHO INKING ROLLER

In a lithographic printing press having an inking system provided with rollers and a dampening system of the type covered by Patent No. 2,690,119, at least one of the rollers of the inking system has a steel surface united with a layer of copper selenide to improve the ink attractiveness and overcome stripping of the roller. No. 2,937,594 by C. B. Miesse.

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By J. S. Mertle and Gordon L. Monsen

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DUPLICATING APPARATUS

In an automatic Addressograph type of machine, which is a continuation in part of the application originally filed for Patent No. 2,883,929, a variable speed drive is associated with one of the feeders so that prescribed registry may be attained between the masters and blanks and the position which the hectograph impression occupies on the master. By a simple adjustment of the variable speed drive, it is possible to place the impression derived from the master at virtually any location along the length of the blank. No. 2,938,456 by W. Eichenbaum.

NOISELESS BED OPERATION

The object is to provide a printing machine in which the bed drive is of such construction as to avoid sharp accelerations and decelerations at the ends of the bed travel, this resulting in a very noiseless operation and absence of excessive strains of the bed driving members. The sheet delivery speed is regulated so as to avoid swirling or buckling of the sheet as it falls on a pile. No. 2,938,457 by Paolo Papa and Federico Capetti. Assigned to Nebiolo S.p.A.

Feeding, Folding, Delivery:

SIDE GUIDE REGISTER

A feature of the invention is the provision of a pair of side guides which are so constructed that the guide actually used as the side register may be positioned for engagement with either side of the sheet. By merely interchanging the supporting mechanism for the side guides, the adjustable registering guide may be arranged to make contact along either edge of the sheet. No. 2,938,723 by Harold E. Paulson.

SHEET REGISTERING SYSTEM

A feature of the invention is that sheets to be registered are subjected to two completely independent registering operations prior to entering the press. The first sheet undergoes a pre-registration which completes any large movement of the sheet and aligns the sheet with printing plate. The second registration then takes place to complete precise alignment prior to transferring the same to the press. No. 2,937,020 by Paul W. Layden.

CONSTANT TENSION UNWINDER

The application for the present patent is a continuation-in-part of that originally filed for Patent No. 2,781,178. A constant speed on a web unwinding mechanism is maintained through a variable speed transmission responsive to the change in brake speed of the press. No. 2,937,819 by Richard Le Baron Bowen, Jr.

INTERMEDIATE STACKING DEVICE

A slatted intermediate delivery table of the type disclosed in Patent No. 2,859,966 is designed to be mechanically rather than manually released and drawn into position for receiving sheets between the interval of two successive sheets from a press. This is accomplished by a pawl which holds table shaft against rotation with a spring-tensioned lever which is intermittently engaged with an oscillating lever. No. 2,937,869 by Fritz Rupp, assignor to Maschinenfabrik Augsburg-Nurnberg, A.G.

SIGNATURE FEEDING DEVICES

To obviate the use of vacuum suckers, this feeder uses signatures in which one leaf of each signature is of greater width than the other to provide an overlap. The receptacle for the stacked signatures is formed with a rib to receive the overlap portions so that as the signatures leave the receptacle, they are partly opened. No. 2,931,646 by Leonard Davis.

ROLL TENSIONING MEANS

The application for this patent is a division of that originally filed for Patent 2,830,534. A larger volume of evenly printed work can be obtained by con-

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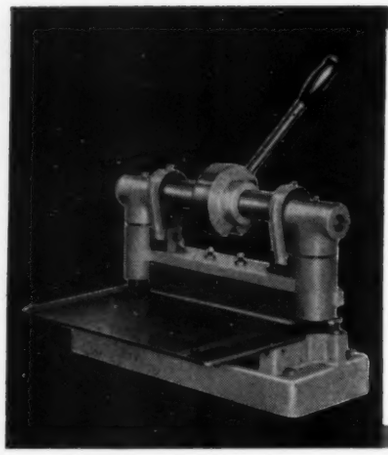

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3. 24" MODEL, weighs 260 lbs., measures 8"x32".

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trolling the pressure of the impression roller, which is accomplished by this patent by using less pressure at the beginning of a run and increasing the pressure gradually as the intensity of the master lessens. No. 2,936,706 by Edward M. Springer and Francis K. Moore, assignors by mesne assignments, to Heyer.

Binding, Cutting, Perforating:

PAPER-BACKED BOOK COVERS

For use in the binding of paper-backed books, this invention provides an outer cover of suitable flexible material which can be adjusted to suit books of varying thicknesses and an inner flap cover which provides additional reinforcement and which bears a tongue on which book title is printed. The tongue extends through a slit in outer cover of the finished book to display the title. No. 2,935,337 by Awrey Ecclestone.

SHEET COLLATOR

The collator employs multiple feeder stations, each of which feeds a sheet to grippers carried by an endless conveyor bearing multiple grippers. The spacing between grippers is equal to the spacing between feeder stations and includes selectively operable members for rendering selected feeder stations and grippers inoperative to accommodate the collating of sheets having greater length than the normal spacing between feeder stations. No. 2,936,167 by W. W. Davidson.

Wetter Assets Purchased—Horace Lockwood, board chairman, New Era Manufacturing Co., is shown signing a contract for the purchase of Wetter Numbering Machine Co. by New Era. Watching, left to right, are: C. Richard Fairlamb, president, New Era; James B. Longshore, president, Wetter, and Carl M. Kaleta, vice president, Wetter. Longshore and Kaleta will continue in their present posts in the new Wetter Div. of New Era.

COMBINED PUNCHING AND UNCURLING MACHINE

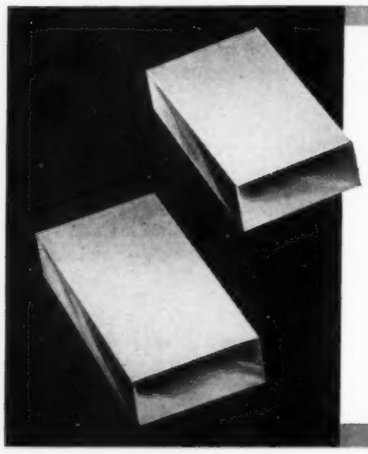
For binding books and pamphlets with resilient tubular binders of the kind formed from a plastic comb-shaped body, this machine is designed to temporarily uncurl the teeth sufficiently to enable the sheets, which have been previously slotted, to be engaged thereover. The machine also includes a punch for forming binding slots in the sheets. No. 2,935,752 by George Albert Rowley, assignor to Plastic Binding Corp.

COLLATING MACHINE

A feature of this collating device is the use of clamps for withdrawing a sheet from a pocket of the storage mechanism, gripping or clamping each sheet for distributing same to a delivery platform or releasing position. Each assembled section is deposited so as to be readily separated. No. 2,936,168 by Luis Mestre.

SHEET GATHERING

By means of suitable prime movers, such as electric motors, drivingly coupled with suction pumps, and an endless conveyor having sectionalized trays, and spaced, vertically reciprocable tables, the assembly



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and gathering of sheets of various sizes is accomplished without substitution of any parts. The sheets can be bound as they are assembled, and the delivery of one and only one sheet to each pack being assembled is assured. No. 2,937,868 by Carl W. Didde and Donald A. Glaser.

Miscellaneous:

MAKING RING CLOSURES

For making plastic comb rolls or spaced ring type cylindrical assemblies for filing and binding purposes, this patent provides for more variety in the shape and contour of the rolls by forming them with a bending operation rather than by rolling. The operation is automatic and provides for conveying the flat combs to the die where they are heated and bent into shape. No. 2,936,485 by Albert Jauss, assignor to Bohm & Co.

COLOR REACTION TYPE DUPLICATION PROCESS

A large number of high intensity copies as well as black copies can be obtained without discoloration by this process. This is accomplished by using a master sheet having an image formed of a composition containing a nickel salt which is contacted with copy sheets moistened with a solution of rubeanic acid in a solvent for the nickel salt. No. 2,936,707 by Richard G. Maguire, and Glen W. Hedrick, assignors by mesne assignments to Ditto, Inc.

NON-PRINTING INDICIA INK

For use with offset printing plates of the colloid type, this anhydrous nonprinting ink is made up of glycerine, dextrin, titanium dioxide, ultramarine blue, calcium carbonate, and china clay. No. 2,936,241 by Thomas A. Sharp and Frederick L. Jones, assignors to Sperry-Rand.

LINE STOP CLINCHING TOOL

A line-of-type retainer and a plierlike tool for upsetting blank type or quadrats to clinch them in slotted mounting plates are provided for the printing of individual names and addresses on checks, letterheads, and the like. No. 2,934,983 by Donal L. Daggitt, assignor to Letterhead and Check Corp. of America.

Letters to the Editors

(Continued from Page 8)

and commented on a fundamental difference in sales and service operations in Europe as compared with America. Overseas printers seem content to operate with considerably less field sales and service coverage than our American plants have grown to expect.

The overseas custom seems to feature trade fairs (and this applies to many lines of industrial products) where buyers make contacts that, in this country, have become an established routine of field calls in every city and town. An occasional printer inquires why the frequent trade fair policy can't be followed in America. But he also agrees that sales and service calls at his home plant and available from the manufacturers' district offices are much more satisfactory in meeting his own immediate needs.

And the manufacturer says: "Both methods of customer contact have their merits, but we can't attempt to operate *both* methods simultaneously. The resulting costs to us must inevitably become part of your costs for new equipment. So we consistently resist the many efforts today to organize equipment exhibitions. We believe that the expositions corporation has done an excellent job as a cooperative service to the several national associations of the Graphic Arts industry, including both the users and the manufacturers of equipment and materials. It has aided the Craftsmen and the Education Council with substantial contributions after saving an operating fund for the next show. In addition, we have found that intervals of several years between shows best fit our economic restrictions."

Harry L. Gage, Secretary
National Printing Equipment Assn.
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Comment of Leaders

(Continued from Page 48)

must be a recognition of the indispensability of printing to all other segments of our society and the realization of the consequent real value of our product. In addition, there must be action taken to institute modern and proper cost finding procedures coupled with the courage to demand and obtain prices which reflect cost, value, and reasonable profit.

2—The tendency of the industry in the '60s will be towards greater automation with which to offset skyrocketing labor costs. Tighter and more effective quality control will be necessary to compete at this level. More specialization of product and a renaissance in the letterpress field of advertising printing will also be tendencies in this decade.

GEORGE F. LONGINO, JR., *president, Longino & Porter, Inc.*

1—Two things are needed in my opinion: A more universal use of the PIA standard cost system, and a more expanded apprentice training program to adequately supply the industry with skilled craftsmen.

Cost is the basis for making equitable as well as profitable quotations in the printing industry. A fluid cost system, faithfully used, is an insurance policy to a printer.

The trend toward precision and away from indifference, a wider use of electronics, photography and chemistry—all of this will certainly change production methods and equipment. This means more care and skill will be required of the printing craftsmen.

2—The changes in the Graphic Arts in the 1960s will be more revolutionary than any of us can predict. Because we are witnessing so many unbelievable developments in the sciences, many of which are already applied to our industry, we are certain to experience great changes in the production of printing. Our survival in this industry will depend upon our moving with the direction our industry takes in this decade in a carefully charted and planned course.

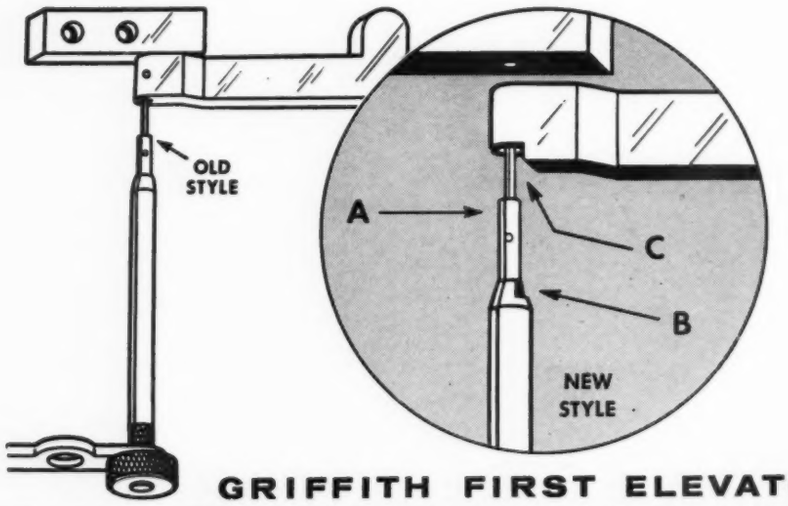
FRANK MAJORS, *vice president-production, Foote & Davies, Inc.*

1—The continued technical development in printing procedures and machinery creates an important need for capable managers. These men should possess not only an understanding of the printing craft but the ability to cope with the complex requirements of our advancing industry. One of the most desired traits will be the skill of communication.

2—Printing in the '60s will continue its trend toward specialization with stronger emphasis on rollfed production equipment, as well as semiautomated preparation processes. One of the greatest strides will come in the field of performance standards, both in quality and volume.

CHESTER MARTIN, *president, American Lithograph Co.*

1—We need a serious collective effort to correct the conditions in our industry that are the cause of low profit and to bring about enough net profit to keep up with the development of new equipment and to replace that which is old.



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A recess has been ground into the Rod or Stud at Point B. The flat surface of this recess engages or dovetails with the flat surface ground into the filler piece at Point C, so that instead of the round Stud going through a round hole, and held by a weak pin, you have two flat surfaces which cannot separate from each other. The other end of the Shaft or Stud is peened over to hold it in, and a pin is no longer required.

However, the Stud (Part No. E-1564) is still provided with a hole so that it may also be used with the old style Filling Pieces.

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2—It seems to me that we will continue to have spiraling costs and resistance to price increases. The buyer of printing also has a case; for when the cost of a product exceeds its use value, the only logical course will be not to buy. Only by economical manufacturing will we be able to operate at a capacity which will show a satisfactory profit.

MARK POPE, 3rd, *president, Williams Printing Co.*

1—I feel that there should be a closer alliance between employing printers. A closer relationship between printing firms would, I believe, have a beneficial effect on the welfare of individual businesses. Closer relationships in selling and cost accounting, and studying ways and means to manufacture more profitably are needed. I feel the best remedy for most of our problems is joint cooperation.

2—I think that offset printing will enjoy the widest popularity of the three processes (letterpress, lithography and gravure). There will be more full or natural color used. Improvements in methods and materials used in the production of full color reproduction will be seen, and at a lower cost. This should bring about a much wider use of color.

MENDEL SEGAL, *managing partner, Stein Printing Co.*

1—During the past decade, employing printers have made tremendous investments in automatic equipment, yet the profit trend has been a steady decline.

The vast variation in printing prices indicates a need for education in costs and pricing. It is understandable that variation in printing equipment can account for some of these differences. When there is, however, 100% or more variation in prices on jobs estimated on the same equipment, it represents a serious problem in the industry. The need for more care in estimating, particularly in preparation, is obvious.

2—As our population increases, there is certainly going to be a need for more printing. The printer who concentrates on specialization, who studies his costs carefully, who seeks more profitable markets, and who trains salesmen to sell at a profit, can certainly look forward to bright business conditions in the 1960s.

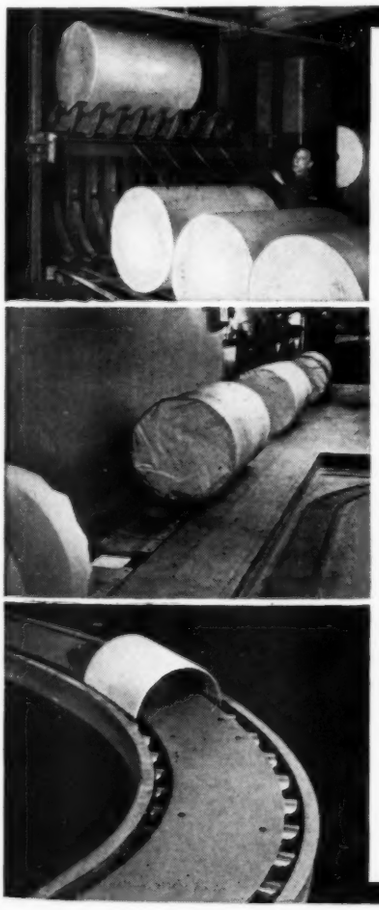
Printing Supply Industry

(Continued from Page 48)

average of three motor trucks per company cover the Greater Atlanta territory.

Atlanta has a chapter of the Salesmen's Assn. of the Pulp and Paper Industry, SAPPI, which has well over 50 members who represent 20 paper mills. Georgia is the number one producer of pulp wood for the manufacture of paper.

Easily available to printers for special and occasional orders are all types of paper products manufactured or represented in Atlanta. These products include bags, boards, containers, hangers, napkins, towels, boxes, tubes and virtually every other specialty paper product.



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For More Information Circle 69 on Reader Service Card

Specialties Big Business

(Continued from Page 52)

engravers working on a three shift, 22 hr. day schedule, Southern Photo Process provides a complete photoengraving service. Its products go not only to a local market, but also other Southern states and large Eastern cities. Many national and trade publications are among the customers of SPPEC.

The company has worked out a method of standardizing materials, methods, and equipment in an effort to insure a given quality result in a given manufacturing time. This controlled procedure approach is an important part of the plant's production philosophy.

Under Thomas L. Cooper, president, the company has installed equipment for the powderless etching of copper, zinc, and magnesium color process plates.

Cooper explained the standardized manufacturing procedure as follows: The density range for an average set of continuous tone color separations is 1.30. Screen negatives for powderless etching have highlight dots from 10% to 15% and shadow dots of approximately 90%. Currently, he explained, there is no fixed standard for dot size with this etching method.

Because powderless etching of process plates is relatively new, intelligent craftsmanship is necessary in setting up procedures. "For this reason, two of the closest working departments in our plant are the color gallery and etching departments," Cooper said.

He indicated that when flat etching tone for tone, control of the result is more certain with powderless etching than with other methods of flat etching. "Presently," he said, "the etching time factor and deep-etching have yet to be worked on, but these are being developed both by our men, Photoengravers Research, and a few other plants."

One of the most important control instruments in the etching department at Southern Photo Process is the plate microscope. With this instrument it is possible for the engravers to more accurately check the shape, formation, and depth of halftone dots and line work than with any other instrument.

It is Cooper's opinion that there is much to be done in the development of powderless etching machines. He believes that this method of etching will bring about some beneficial changes for photoengravers in reproducing certain types of color copy.

▶ DITTLER BROTHERS, INC.

Dittler Brothers, Inc., has grown from a small job plant into one of the South's largest letterpress printers, principally through specialization of production. Today, the company occupies a four story plant and office building containing 65,000 sq. ft.

Dittler's production falls into four principal categories which are: Timetables and other schedules; long run commercial work such as color printing for weekly national publications; cigar bands and wraps, and calendars and memo books.

Workflow starts on the second floor which contains offices for sales, purchasing, estimating, production

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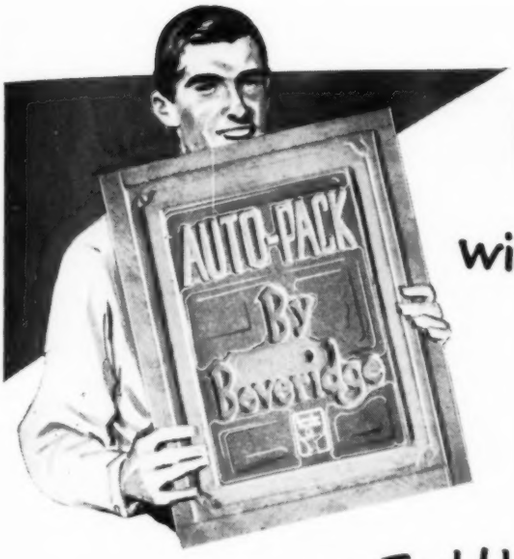

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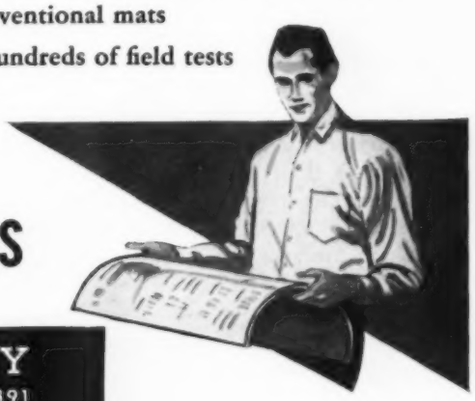

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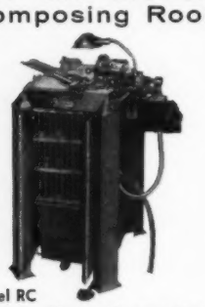

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Do-More Saw-Trimmer, Router, Planer, unit. Low initial cost, greater production efficiency. The Do-More leads the field for the modern weekly that wants to economize.

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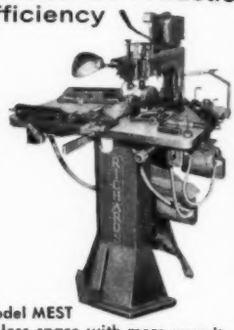

Model MEST
In less space with more capacity, with a Electromatic Universal Saw Trimmer, Router and Mortiser.

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and proofreading. From here, where layouts are planned and approved, work proceeds to the first floor composing room.

The first floor also contains the job department which consists of several Vertical and handfed presses, and the main pressroom. Since the majority of work at Dittler Brothers is in color, the largest number of presses are two and five color rotary sheetfed Cottrells. The five colors do four color process work for national publications as well as labels and other long run commercial work. Two color presses handle timetables, cigar bands, calendars and other similar jobs. The pressroom also contains several single-color presses as well as special bronzing and embossing equipment used principally for cigar bands.

In addition, Dittler Brothers operates German-made varnishing equipment, capable of both naphtha and spirit varnishing.

From the pressroom most work proceeds to the second floor bindery and shipping department. Dittler Brothers' bindery is equipped with several automatic spacer guillotine cutters as as well as Cleveland and Baum folders of all sizes. The firm also operates Sheridan automatic stitchers with multiknife trimmers for finishing operations. Dittler Brothers has produced up to one million timetables a month for the transportation industry with shipments to over 10,000 different destinations.

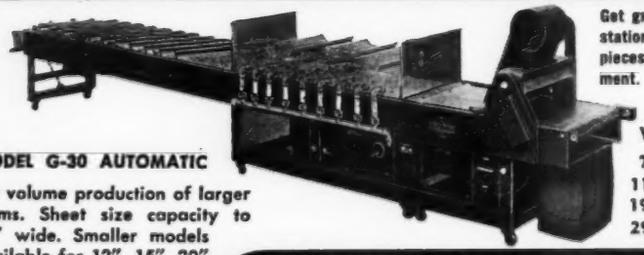
Perhaps the most distinctive equipment in the bindery is the cigar band equipment. Cigar bands are first sheet inspected, stripped on a cutter and then die cut on special die cutting machines designed and built by Dittler Brothers. As these machines stamp out the bands, they automatically move to special inspection tables where they are packed for shipment. These machines produce approximately 10 million bands a day.

The third floor at Dittler Brothers is devoted to additional binding equipment used principally in memo books and calendar work. This includes a stitcher that folds and stitches memo books in one operation. Since Dittler produces millions of these books, these machines have proved to be a great time saver. Also used in connection with the memo book operation is a disc ruling machine that permits ruling and sheeting from rolls. The calendar equipment includes tinning machines which apply the binding metal, and a rolling and wrapping machine designed and built in the plant. The rolling and wrapping machine rolls the calendar, cuts the wrapper, inserts a pull string, prints the outside of the wrapper, and rolls and seals it.

Machines like the above are developed and built in the fully equipped machine shop, also located on the third floor. This shop contains lathes, milling equipment, grinding equipment and other machines necessary for building and repairing machinery in the plant.

Dittler Brothers early in 1960 purchased 5½ A. of land and plans to erect a modern one story plant of approximately 90,000 sq. ft. Also included in the expansion plans has been the purchase of a multicolor web publication press—Dittler's first step into the web field.

RAISED PRINTING IS HIGHLY PROFITABLE BUSINESS



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For volume production of larger forms. Sheet size capacity to 30" wide. Smaller models available for 12", 15", 20" sheet widths.

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Planning for BETTER Imposition

This book should occupy a space on the bookshelf of every production planner. Written by H. Wayne Warner of Judd & Detweiler, Inc., Washington, D. C., in concise language, the author explains the intricacies of imposition. With fifty diagrams of sheet lays and forty pages of text, the production planner will consult this handbook time and again. Tips are given on planning impositions for folders and presses, terminology, and establishing margins.

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#79 E.D. (Drawsheet)		X						
#77 Draw Sheet	X	X						
#76 Cork (Unders)			X	X	X	X	X	X
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The Best Known CHASES
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AMSCO Stereotype Chases (Steel and Aluminum) have been the first Choice in stereotype departments where rigidity and consistent accuracy means economy of maintenance.

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Amazing NEW
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Circle 111 on Reader Service Card

Commercial Printing

(Continued from Page 45)

equipment, except for a reproduction press, are therefore power driven. Without this type of equipment, deadlines for proofs could never be met.

After lockup on the imposing table has taken place, the forms are delivered to the letterpress pressroom in a specially designed elevator. The elevator will accept two 26 in. by 40 in. forms per trip. Because of its convenient location only 10 ft. from the stone, the elevator saves considerable time and labor that would otherwise be required.

Darby Printing Co. is a combination plant which employs 68 people. It is interesting to note that 60% of the business is printed offset and 40% letterpress.

A preregister system is in use on both letterpress and offset jobs. A Registerscope is located over the imposing table on which all letterpress forms are placed prior to being sent to the pressroom. The offset platemaking and press departments are equipped with Harris Key Register systems which provide accurate register between plates.

Within 30 minutes after an order enters the plant, the foremen are provided with a complete description of the job. This allows them to plan for any special requirements demanded by the job. In order to deliver these specifications to them as swiftly as possible, a Verifax machine is used. A copy for each is made of the job ticket and the original filed with the plant superintendent.

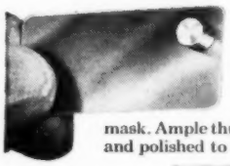
The company's sales area includes Georgia and surrounding Southeastern states. Darby's products include full color publications, periodicals, books, promotional and other general commercial work.

▶ AMERICAN LITHOGRAPH CO.

American Lithograph Co., Inc. has experienced a steady growth since its founding in 1947. In 13 years, the company has grown from 10 to 75 employees and has become widely known for its quality color printing.

The three story building of 50,000 sq. ft. floor space is located in downtown Atlanta near railroad

Ask Carlson
how to get and hold Perfect Register



This $1.35 Carlson stainless steel register pin sent free with the answer. Thin base. Will not buckle mask. Ample thumb space. Machined and polished to exactly .250".

This generous sample of Carlson Mask also sent free with the answer. Each sheet of Carlson Mask is clearly identified with the Carlson mark of quality.

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GLAZCOTE INK CONDITIONER
Provides tough, scuff- & scratch-resistant finish.
1 lb. can $2.20 Send for Price List
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Mfrs. of Trik, 20/20 Overprint Varnish, 33 & 0-33 Ink Conditioners

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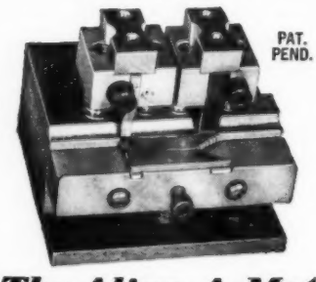
Can you still afford to throw them away because of bad alignment?



The Align-A-Mat

This simple device will double and triple the life of your working fonts. It will restore to factory standard hundreds of mats ready to be discarded. When sorting up fonts, old mats corrected on the **Align-A-Mat** will align perfectly with new ones. Distributor stops due to the lugs worn short will also be eliminated. **Only $145**

EVERY MAT SAVED IS 35¢ SAVED

No special skill required to operate. Now in use in hundreds of leading plants here, in Canada and abroad.

Please write for literature.

FISK, 130 W. 46th St., N.Y. 36, N.Y.

Circle 62 on Reader Service Card

and postal centers. With a parking lot that accommodates 100 cars, the usual problem of parking which is common to a central location is well taken care of.

Thurman DuVall, art director, has a department which consists of eight commercial artists. With accounts such as Coca-Cola, Merits (American Bakeries), Wembley men's wear and others of equal importance, there is a great deal of creative advertising material produced. Camera Lucikon in this department, which is used in the preparation of layouts and dummies, provides accuracy and time savings.

All production departments are located on the first floor; the second and third floors are storage space for completed printing, materials and supplies. All departments in the plant are illuminated with overhead fluorescent fixtures. The building is protected with a sprinkler system against fire.

Because all machine composition is sent out to trade shops in Atlanta, the composing room is equipped only for Ludlow and hand composition.

"You'll be taking Smith's place."

Color, both process and spot, are American Lithograph Co.'s specialty, and it comprises the greater volume of its work. Approximately 90% of its camera work is purchased from trade suppliers. The company has recently installed a large Borrowdale camera and air conditioned darkroom which is the first of new equipment plannned to reduce outside purchases.

To take care of a wide variety of work, there are eight stripping tables plus a lineup table. The equipment in the platemaking department includes one horizontal and two vertical whirlers and a Monotype step and repeat machine.

Press equipment includes both letterpress and offset with larger presses offset. Five litho presses are located in American's pressroom which range in size from 17 in. by 22 in. to 22 in. by 34 in. Letterpress equipment consists of a 21 in. by 28 in. Heidelberg printing and die cutting press, a 10 in. by 15 in. job press, two Kluge's, and Miehle Vertical.

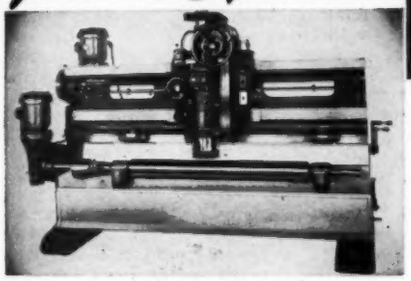
Plate storage is handled on tubular steel vertical suspension racks. An index filing system facilitates easy location of a particular plate.

In the bindery there are 40 in. and 51 in. cutters, a Graeber stringing machine that handles stringing and eyelet work, and two 22 in. by 28 in. Baum folding machines.

Executives of American Lithograph include: Chester E. Martin, president; Joseph N. Norton, vice president; John W. Lundeen, Jr., secretary-treasurer. Production manager is B. E. Richardson.

Gravure Cylinders

MIRROR SMOOTH



The Ultimate in Precision GRINDING and POLISHING MACHINES

Available In Two Sizes

Quality and "Know-How" Since 1928

Grinding and polishing copper plated Gravure Cylinders is done with special "Intaglio" stones. Water is used as a coolant, thus eliminating all dust. The resulting finish is finer than obtainable with paper and is completed in half the time.

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Insures a Secure Package

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Uses jute or sisal, single or cross-tie

Literature on request.

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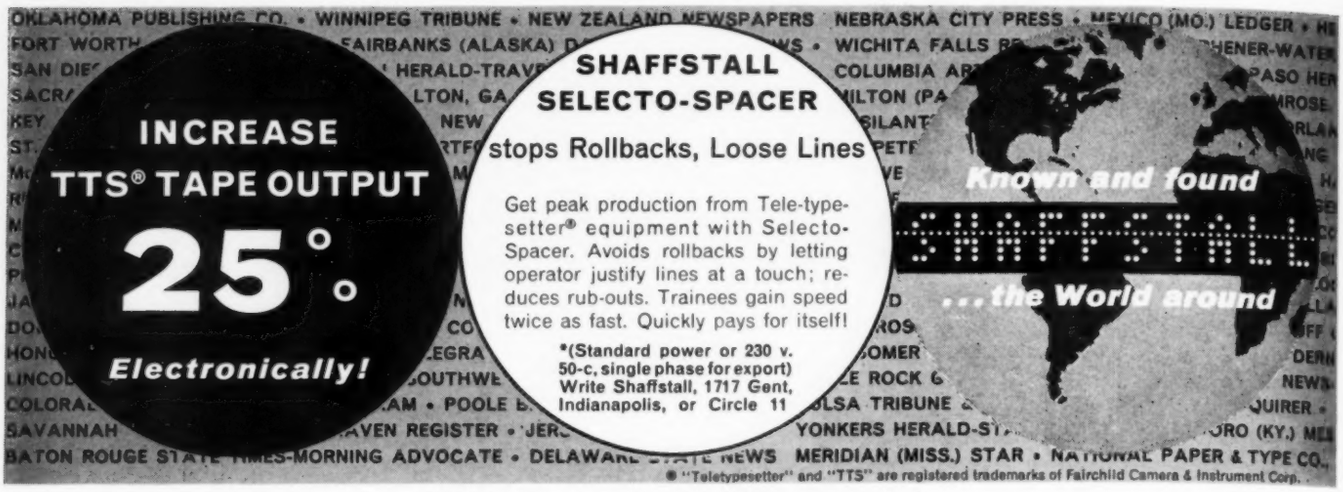
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Get peak production from Tele-typesetter® equipment with Selecto-Spacer. Avoids rollbacks by letting operator justify lines at a touch; reduces rub-outs. Trainees gain speed twice as fast. Quickly pays for itself!
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For More Information Circle 11 on Reader Service Card

Helpful Literature

(Continued from Page 36)

George Hantscho Co., Inc. Included in the publication are arrangements of one to four units for single and multicolor work. Circle No. 337 on Reader Card.

MILLER OFFSET PRESSES

Information on Miller offset presses has been published by Miller Printing Machinery Co. Model IV measures 30 in. by 42 in. and handles one to five color printing; model V measures 36 in. by 48 in. and handles from one to five color printing; model VI measures 40 in. by 56 in. and handles two to five color printing. Circle No. 338 on Reader Service Card.

Bindery-Mailroom

SPEED-KLECT COLLATORS

Information has been prepared on the Speed-Klect collator by Didde-Glaser, Inc. The unit is available in sizes ranging from three to nine stations. Circle No. 326 on Reader Service Card.

SHERIDAN BINDERY EQUIPMENT

T. W. & C. B. Sheridan Co. has prepared informative literature featuring its inserting - stitching - trimming machinery. According to the manufacturer, the unit will insert, stitch and trim books from 3⅜ in. by 7 in. to 12 in. by 19 in. Circle No. 332 on Reader Service Card.

Miscellaneous

BOURGES COLOTONE SHEETS

A booklet describing Colotone sheets has been prepared by Bourges Color Corp. The sheets are available in the 12 basic printing ink colors and are recommended for layout, dummying, separation art and package design operations. Circle No. 311 on Reader Service Card.

MEAD SAFETY PAPER

Samples of Duo-Safe safety paper have been made available by Mead Papers, Inc. The stock is available in three patterns and six colors. All stock may be ordered with different colors and patterns on each side. It is claimed that the paper offers two-sided protection against tampering and that it has the ability to hold the tolerances needed for spot carbonized and magnetic ink systems. Circle No. 312 on Reader Card.

NEKOOSA OFFSET PAPER SAMPLES

A folder containing samples of Nekoosa offset paper is available from Nekoosa-Edwards Paper Co. In the folder, various printing techniques appear on colored and white vellum finish, basis 70 stock. Circle No. 340 on Reader Service Card.

INDUSTRIAL STEEL SHELVING

A 36 page catalog describing its line of industrial and commercial steel shelving has been compiled by Penco Div., Alan Wood Steel Co. Included in the catalog are bin units, tool storage inserts, storage cabinets and steel lockers. Circle No. 309 on Reader Service Card.

EASTERN NEWSPAPER SUPPLY CATALOG

A catalog has been issued giving the specifications of equipment and supplies handled by Eastern Newspaper Supply, Inc. Included is equipment for composing rooms, stereotype departments, photoengraving and pressrooms. Circle No. 330 on Reader Service Card.

MOBILE PAPER SWATCHES

Swatches of Mobile printing papers are included in an informative folder issued by Hollingsworth & Whitney, Div. of Scott Paper Co. In the folder are samples of Mobile vellum, index, ivory tag, white tag and cream postcard stock. Circle No. 307 on Reader Service Card.

ELECTRION pH METER

A data sheet on the Electrion pH meter has been issued by Sel-Rex Instruments, Inc. The meter is palm-sized and uses a combination electrode. Reportedly, the meter requires standardization only once a week. Circle No. 313 on Reader Card.

HURLETRON

... *the* name for precision in automatic electronic controls and inspection machines for the film, paper, printing and other industries.

ELECTRIC EYE EQUIPMENT COMPANY
DANVILLE, ILLINOIS

For More Information Circle 56 on Reader Service Card

EASY ON THE EYES!

Matrix Contrast treated reference marks, symbols and characters make matrices in the assembler easy to read. Linecasters "See What They Set" and, because they make an average of 33 1/3% *fewer errors*, they gain valuable working time on every shift.
Matrix Contrast Service is definitely easier on the eyes and saves time in the composing room. Get the facts about this time and money saving service today!

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For More Information Circle 114 on Reader Service Card

Roll-Wound Paper

Efficiency Expansion Chucks

In one operation, lever the cam and lock it. It won't slip —ever. Unwind, rewind, or brake easily. There are efficiency expansion chucks for either fibre or steel cores up to ten inches in diameter—for shafts of 1" to 3½" in diameter in graduations of 1/16".

Chucks are inter-changeable—no rights or lefts. Give years of service—made of malleable high strength castings. Surfaces which contact core are precision machined. Lever action applies powerful force to the expansion jaws. Ribbed jaws bite firmly into core, eliminating core slippage when starting or changing speeds, even under extreme brake tension.

Write for the full time and money saving facts to—

VALLEY MFG. CO. Valley, Nebraska

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Engineering

Services for the GRAPHIC ARTS

Based upon a knowledge of printing requirements

Layout, design, construction supervision for

New plants—Alterations
Equipment Installation

CHAS. T. MAIN, INC.

Boston, Mass. Charlotte, N. C.

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THOSE MAGAZINE CHANGES CAN BE ALMOST A PLEASURE . . .

When you use Montco Lightweight Linotype Magazines. Even the gals don't mind changing these Montco Magazines.

DROP YOUR ORDER IN THE MAIL TODAY FOR A MONTCO LIGHTWEIGHT LINOTYPE MAGAZINE!

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Lightweight
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- **Aluminum Top Plate**
- **Brass Bottom Plate**
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Full Length	Lower Split
$165.00	$150.00

MONTGOMERY COMPANY, INC.

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ADVERTISERS' INDEX

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PRINTING PRODUCTION REPRESENTATIVES

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Alan Wood Steel Co. 34
Alteneder, Theo., & Son 111
American Publishers' Supply, Inc. 58
American Roller Co. 61
American Steel Chase Co. 106
American Type Founders Co., Inc. 32, 33
Ansco Div., General Aniline & Film Corp. 2
Appleton Coated Paper Co. 54

Baum, Russell Ernest, Inc. 82
Beveridge Paper Co. 103
Bingham's Son, Sam'l, Mfg. Co. 22
Booth, E. A., Rubber Co. 110
Brandtjen & Kluge, Inc. 13
Brooks & Perkins, Inc., Magplate Div. .. 97

Capital Tool & Mfg. Co. 105
Carlson, Chesley F., Co. 106
Central Compounding Co. 106
Certified Dry Mat Corp. 15
Chemco Photoproducts Co., Inc. 25

Davis, W. F., Consultants 111
Didde-Glaser, Inc. 35

Eastern Fine Paper & Pulp Div., Standard Packaging Corp. 17, 18
Eastern Newspaper Supply, Inc. 79
Eastman Kodak Co. 67
Electric Eye Equipment Co. 108
Empire Laboratories, Inc. 102

Fairchild Graphic Equipment, Div. Fairchild Camera & Instrument Corp. 26, 27
Fisk Industries 106
Flint Ink Corp. 69
Force, Wm. A., & Co., Inc. 93

Gifford-Wood Co. 101

Hammond Machinery Builders, Inc. ..... Inside Back Cover
Harris-Intertype Corp. 20, 21
Harris-Seybold, Div. of Harris-Intertype Corp. 81
HCM Corporation 29
Heidelberg Automatic Presses 38

Ideal Roller & Mfg. Co. 64
Imperial Type Metal Co. 6, 89
Interchemical Corporation, Printing Ink Div. 73
Intertype Company ..... Outside Back Cover

Jampol Corporation 94

Kemp, C. M., Manufacturing Co. 103
Korn, Henry P., Associated, Inc. 30
Korthe Engineering Co. 110

Lanston Monotype Co. 11
Ludlow Typograph Co. 7

Main, Chas. T., Inc. 109
Matrix Contrast Corp. 108
Mergenthaler Linotype Co. 24
Midwest Publishers' Supply Co. 106
Miehle Company, Div. of Miehle-Goss-Dexter 23
Miller Printing Machinery Co. 9
Minnesota Mining & Mfg. Corp..75, 76, 77, 78
Monomelt Co., The, Inc. 98
Montgomery Company, Inc. 109
Morrison Company 91

National Bundle Tyer Co. 107
Nolan Corporation 8, 111
nuArc Company, Inc. 14

Offen, B., and Co. 111
Oxy-Dry Sprayer Corp. 85

Pate Company 111
Potdevin Machine Co. 109
PRINTING PRODUCTION 4, 94, 105

Reeves Bros., Inc. 105
Richards, J. A., Co. 104
Robertson Photo-Mechanix 10
Rolled Plate Metal Co. 92
Roto-Verter 110
Rouse, H. B., & Co. 12

Scott, Walter, and Co. 31
Shaffstall Equipment, Inc. 108
Sheridan, T. W. and C. B., Co. 19
Simco Company, The 86
Sta-Hi Corp. 1
Standard Process Corp. 107
Star Parts, Inc. .....100, Inside Front Cover

Tenak Products Co. 3
Tirfing Printing Machinery 28

Universal Mono Tabular Corp. 16

Valley Manufacturing Co. 109
Vandercook & Sons, Inc. 110
Virkotype Corporation 104

West Virginia Pulp and Paper Co. 56, 57
Wetter Numbering Machine Corp. 86
Wood Flong Corp. 99
Wood Newspaper Machinery Corp. 37
Worthington, Emory W., and Associates.. 111

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To Build $1 Million Press—National Publishing Co., Washington, D. C., has ordered a $1 million deck-type magazine press from R. Hoe & Co., Inc. The web letterpress will reportedly be capable of printing 16 four color and 48 two color pages. Signing the contract is W. W. Rapley (seated), president of National. Standing, at left, is Joseph L. Auer, president, Hoe. Other National executives watch.

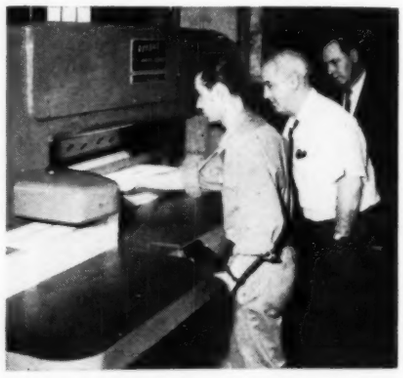
GRAPHIC VIEWS

of the Printing Industry

Western Novel Depicted by Harris — *The Virginian*, America's first Western novel is graphically retold on the 1960-61 Map-of-a-Book series calendar issued by Harris-Intertype Corp. Lithographed in six colors on special 120 lb., white, tweed-weave stock, the calendar was printed by Brown & Bigelow Co., St. Paul, Minn. Copies are available.

Heidelberg Press Rides Tulip Time Float—A 10 in. by 15 in. Original Heidelberg platen press was featured on the prize winning float of the Pella (Ia.) *Chronicle* during the recent Tulip Festival in Pella. Bennie Anderson, Heidelberg representative in Kansas City, Mo., in appropriate Dutch attire, rides the float.

Judges Pick a Winner—Judges examine a winning entry in the Gallery of Fine Printing and Lithography, competition, sponsored by Simpson Paper Div., Simpson-Lee Paper Co. Left to right, are: Peter Lang, Laney Trade School, Oakland, Calif.; Mrs. Rita Carroll, publishing department, and A. R. Tommasini, superintendent—both of the University of California Press.



Regent Cutter Installed in New York—Operator Jack Sandelman, Baron-Kahn Co., prepares to make a cut on the first Lawson Regent 42 in. cutter to be installed in New York City. Watching are I. Baronfeld; center, president, Kahn, and Arthur Davis, Lawson.

Fairchild To Represent Ascor Abroad—Ascorlux Xenon arc equipment for the Graphic Arts is to be distributed abroad by Fairchild Camera En Instrumenten MIJ, N. V., Amsterdam, Netherlands, Sub. of Fairchild Camera and Instrument Corp. Signing the distribution agreement is Harry L. Parker, president of American Speedlight Corp. Watching is J. A. V. Hyatt, general manager, Fairchild.

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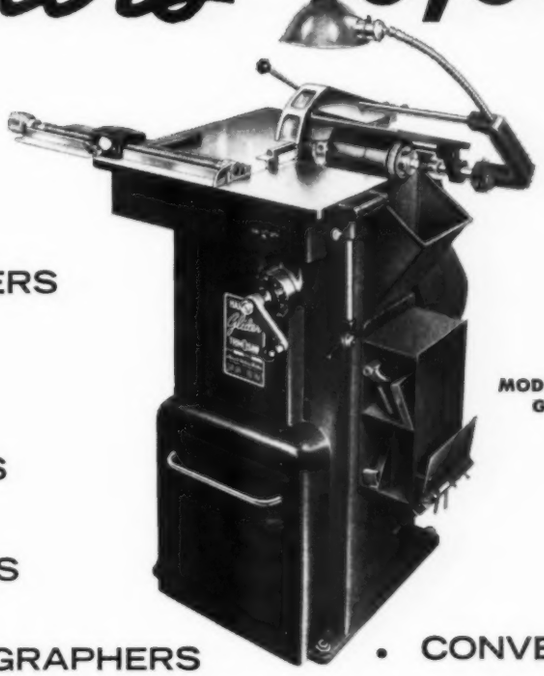

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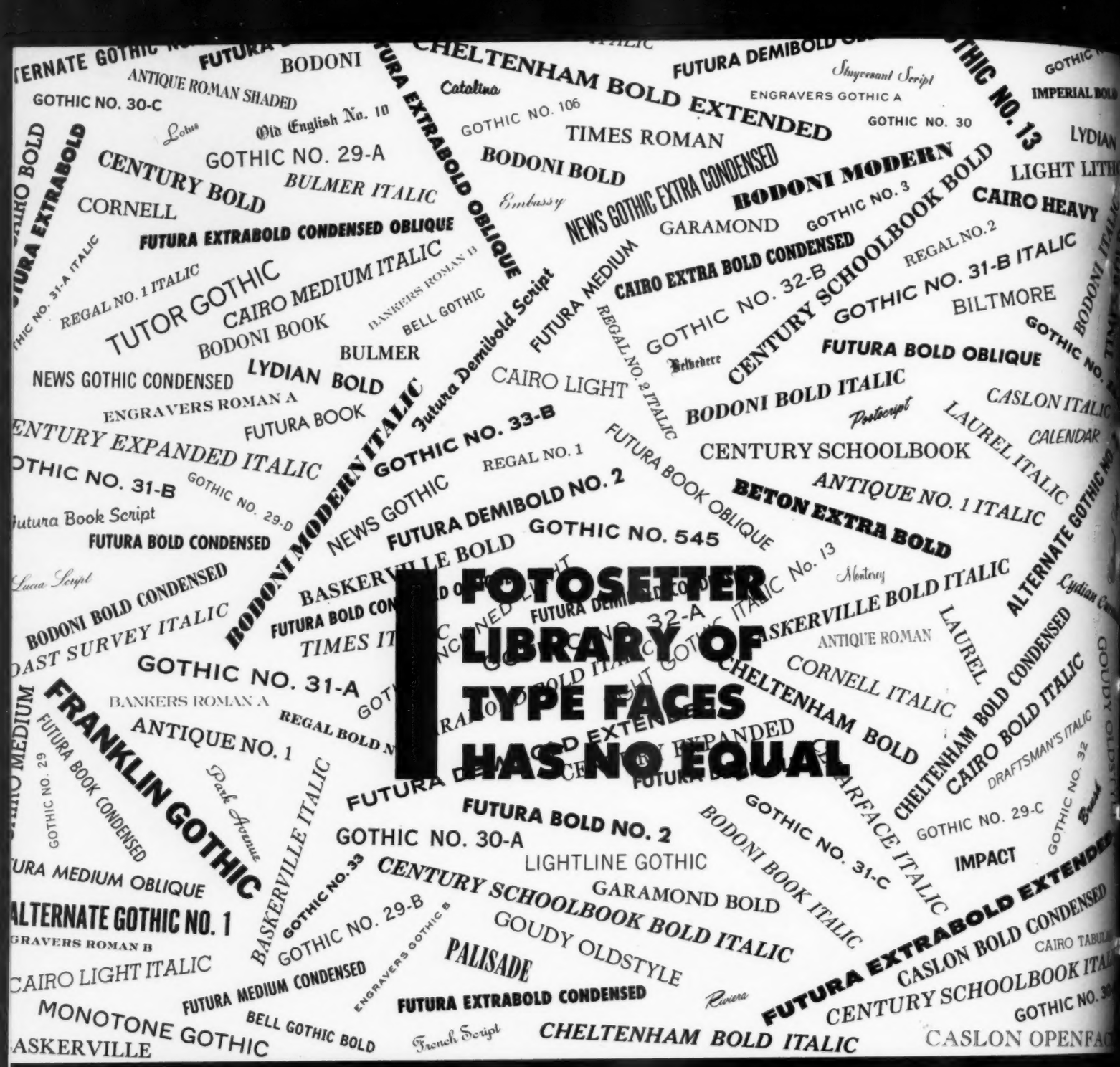

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